

ATTACHMENT J-1

9.0 REPAIR BUILDINGS & STRUCTURES

9.1 GENERAL REQUIREMENTS

The Contractor shall provide all labor, management, supervision, tools, materials, equipment, incidental engineering, and transportation to perform maintenance, repair, alterations, and inspections on buildings, structures, and equipment at MSFC which includes maintaining the industrial water distribution system and the associated cathodic protection system, the low pressure shop air distribution system, and maintenance of MSFC sump pumps in pits and manholes. This shall also include pest control both inside and outside of buildings and structures. Buildings, structures, and equipment to be maintained are described in L-12 and L-24. The work shall be performed as Lump Sum and IDIQ work items.

9.2 LUMP SUM WORK

The following Contract Requirements shall be performed per the Performance Requirements Summary (PRS) Section E.10, at the frequencies or performance criteria specified within the contract requirement:

A. Contract Element (Include in CLIN - 00X1.0401) Trouble Calls (TC)

1. The Contractor shall respond to all building and structure related TCs per Paragraph 4.2, Trouble Calls. The Contractor shall provide all maintenance, repairs, and alterations as identified in Paragraph 9.5, A through H, Detailed Specifications, in accordance with Federal, state, and local regulations and codes including historic preservation requirements. Services not identified in the detailed specifications paragraph shall be in accordance with normal industry standards.
2. All roof leaks shall be considered emergency TCs and the Contractor shall respond, repair, and document roof related TCs in the following manner.
 - a. The Contractor shall protect building interior, furnishings, equipment, and personnel by safely containing incoming water within 1 hour of detection or notification.
 - b. The Contractor shall perform the appropriate temporary repair or alteration within the time allotted. Refer to Paragraph 9.5.G, Roofing, for repair methods.

- c. The Contractor shall evaluate all temporary repairs when conditions allow for the installation of a permanent repair. Refer to Paragraph 9.5.H, Roofing.
 - d. The Contractor shall document the cause and exact location of roof leaks on the TC form. In addition, the Contractor shall be responsible for updating the existing roofing database to include any TC work performed on a roof. All existing software and survey data will be furnished by the Government at start of contract (See Contract Element (CLIN - 00X 1.904) Roof Documentation). This data shall be migrated to the CMMS within 6 months of contract start and after that time shall be maintained in the CMMS.
3. The Contractor shall do all pest control related TCs per Paragraph 4.0, Trouble Calls/Trouble Call Services.
- B. Contract Element (CLIN - 00X1.901) Semi-Annual Roof Inspections The Contractor shall perform semi-annual roof inspections on building roofs listed in Attachment L-25. At contract start, the Government will furnish all existing software and survey data of the roofs. The inspection criteria shall include all elements of maintenance to protect the facilities from leaks, and to preserve the condition of the roof and prevent it from further degradation. The inspection shall include all elements of roofing, flashing, coping, gravel stops, pitch pockets, penetrations, drains, perimeter edging, fascia, scuppers, and caulking. The information obtained from the roof inspections shall be used to update the database. The Contractor shall complete all data fields required by the software for each roof inspection.
- C. Contract Element (CLIN - 00X1.902) Pest Control The Contractor shall perform periodic inspections of all MSFC facilities and grounds for evidence of rodents, pest and/or insect infestation; identification of problem areas; preparation and application of insecticides, rodenticides, poisons, chemicals, oils, dust sprays, and mixtures; disposal of reptiles; trapping of rodents and fur bearing animals; application of bird repellents to buildings and structures; and other control measures. All chemical handling and disposal shall comply with Paragraph 6.0, Environmental Management Support. All pest control shall be performed in accordance with Federal, state, and local environmental laws and regulations. The Contractor shall maintain on-site all application records and these records shall be available for inspection by Government and other environmental inspectors at all times. The Contractor shall submit the periodic inspection schedule by the 9th calendar day after the contract award. This schedule will be used as the basis for timeliness in work performance.
- D. Contract Element (CLIN 00X1.903) Equipment Room PM The Contractor shall develop a schedule to inspect and clean all equipment rooms monthly. Cleanup

shall include removing loose debris and furniture and initiating work orders for other work such as leak repair, equipment repair, or painting. The cleaning associated with this contract element does not relieve the Contractor from performing clean up associated with specific work in an equipment room. The schedule shall be submitted to the COTR within 15 calendar days of award of contract and will be used as the basis for timeliness in work performance.

9.3

DOCUMENTATION AND REPORTING REQUIREMENTS

- A. Contract Element (Include in CLIN – 00X1.0306) Status Report The Contractor shall continuously update the CMMS to reflect any and all equipment failures and corrective actions taken. The Contractor shall also update any roof database or software provided by the Government. All data shall be accurate and current.
- B. Contract Element (CLIN – 00X1.0904) Roof Documentation The Contractor shall continuously document in the database all changes which affect the condition of the roofs on facilities listed in Attachment L-25. Changes to the database shall be made within ten working days following completion of the roof work. The Government may at any time access the database and review the information contained therein. The database, including changes made under this contract, is Government property, for the exclusive use of the Government, and may not be transferred to another location, in any form, or used by the Contractor for any other purpose except for work performed under this contract. Data shall be accurate and up-to-date within a week of any given time.

9.4

IDIQ WORK

IDIQ work will be ordered in accordance with Paragraph 1.6, IDIQ, and may be ordered for any facility or area at MSFC (including buildings on loan from the Army). Refer to Paragraph 1.1 for off-Center work. Maintenance and repair IDIQ work shall be completed within the number of days specified on the FWR or DO.

- A. Roof Repairs Repair roofs per Paragraph 9.5.H, Roofing. The 'Means® Facilities Maintenance and Repair Cost Data Handbook will be used to determine cost of maintenance and repair items.
- B. Pest Control Perform abnormal pest control per Paragraph 9.5.I. Paragraph 1.6, IDIQ Work, will be used to determine cost of abnormal pest control.
- C. Additional Pest Control for Picnic Area The Contractor shall, upon notification from the COTR, once annually, treat the picnic area for insects for 15 consecutive days prior to the annual MSFC picnic.

- D. Sign Making The Contractor shall provide signs to the Government as requested. Special sign making equipment is included with the Special Purpose Equipment shown in Attachment J-8. (Reference ECNs 1218769, 1288143, 1444111, 1533283, 128699, 1286100, 1288143, and 1286101).
- E. Each of the following CLINs shall be pre-priced in Section B. CLIN 0002.0907 and 0002.0908 shall only be used when the trouble call limit is exceeded.
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| 0002-0901 | Install whiteboard/bulletin board approximately 6 ft. X 4 ft. in size (1 each). |
| 0002.0902 | Install whiteboards/bulletin boards approximately 6 ft. X 4 ft. in size (3 to 5 each in same building). |
| 0002.0903 | Install whiteboards/bulletin boards approximately 6 ft. X 4 ft. in size (6 to 10 each in same building). |
| 0002.0904 | Hang picture approximately 30 in. X 16 in. or less in size (1 each). |
| 0002.0905 | Hang pictures approximately 30 in. CX 16 in. or less in size (3 to 5 each in same building). |
| 0002.0906 | Hang pictures approximately 30 in. X 16 in. or less in size (6 to 10 each in same building). |
| 0002.0907 | Provide and install blinds (price by square foot). |
| 0002.0908 | Provide and install ceiling tiles (price by square foot). |

9.5

DETAILED SPECIFICATIONS

- A. Carpentry and Masonry The Contractor shall repair and replace carpentry and masonry portions of buildings, structures, and facilities, including all floor, wall, ceiling and roof construction, building finishes, door hardware, foundations, waterproofing seals, and flashing not included in other paragraphs of this contract. Interior and exterior finishes, trim, and decor shall be maintained to match existing finishes. Loose items shall be re-secured by tightening or replacing screws, or by using a suitable adhesive. Damaged or missing items shall be replaced with items matching the original. Replacement hardware shall conform to original material or MSFC Technical Specifications for Repair and Construction (TSRC-4). Hardware items requiring lubrication shall be lubricated and restored to an operable condition. Repairable rusted metal components shall be cleaned of all rust, coated with a rust inhibitor, and restored to an operational condition. The Contractor shall also be responsible for

structural alterations and equipment installations which include, but not limited to:

1. Floors and Floor Covering Damaged or deteriorated flooring, subflooring, and structural members shall be repaired or replaced to provide a structurally sound, uniform, and aesthetic surface which is free of cracks, breaks, chips, tears, gouges, stains, and buckling. The Contractor shall inspect exposed portions of subfloor during repair or replacement activity. Any evidence of structural damage or deterioration shall be immediately reported to the COTR before proceeding. Some flooring material, baseboard, or adhesive may contain asbestos, which will require special handling and disposal in accordance with Paragraph 6.0, Environmental Management Support.
 - a. Resilient Tiles Damaged or deteriorated tiles shall be replaced with matching tiles of the same thickness as original. Damaged tiles or tiles to be replaced shall be removed without affecting adjacent tiles. The affected area shall be cleared of all debris and moisture to provide a clean, uniform, dry surface for the installation of new tile. Installation shall be in accordance with manufacturer's instructions. Upon completion, the entire floor shall be thoroughly cleaned and waxed to provide a uniform surface. Note: Many of the buildings at MSFC have floor tile which contains asbestos. In addition, the mastic attaching these tiles to the subfloor also contain asbestos.
 - b. Linoleum and Vinyl Sheet Flooring Areas of flooring having deep gashes or other defects shall be replaced with matching sheet flooring of the same thickness as the original. A replacement section matching existing flooring which is cut larger than the damaged area shall be taped over the defect such that the decorative flooring pattern is continuous. To ensure a properly fitting patch, the Contractor shall cut through both layers of vinyl around the damaged area. The patch and the section of damaged flooring shall be removed and the underlying surface shall be cleaned of all moisture, adhesive, and debris. The patch shall be installed as recommended by the flooring manufacturer. Loose flooring shall be re-secured using an adhesive recommended by the flooring manufacturer. Upon completion, the entire floor shall be thoroughly cleaned and waxed to provide a uniform surface.
 - c. Carpeted Flooring Repair damaged carpet, replace or install transition strips, tighten loose carpeting, repair seams and other related items as required to match or fix existing carpeting. Complete room carpet replacement is not a part of this paragraph.
 - d. Concrete Floors Cracked, broken or spalled areas shall be patched with a nonshrinking cement mortar. Areas shall be cleaned and all loose

concrete removed. Underlying surfaces shall be chipped to ensure bonding with the patch. Shallow spalled areas shall be chipped to provide space for an adequate patch thickness. The patch shall be finished even with the adjacent surfaces and finished to match existing texture.

- e. Vinyl Baseboards Deteriorated or damaged sections of vinyl baseboard shall be removed. Wall and floor surfaces shall be cleaned of all dirt, oil, grease, mildew, moisture, adhesive and debris. Loose baseboards shall be re-secured to the wall. Damaged, deteriorated, or missing baseboard sections shall be replaced with an adhesive that conforms to the manufacturer's recommendations.
 - f. Ceramic Tile Ceramic tile floors that are broken, missing, cracked or discolored shall be replaced as required. Floor tiles shall be re-grouted to provide a waterproof seal. When replacement tiles of an exact match cannot be found, the Contractor shall remove and replace non-defective tiles to create a pattern and minimize the visual effect of the mismatch.
2. Interior Walls, Ceilings, and Trim Damaged and deteriorated walls, ceilings, and related trim shall be repaired or replaced to provide a surface which is free of noticeable cracks, spalls, raised areas, holes, dents, marks, and stains to match the surrounding surfaces. Wood trim items and ceiling fixtures shall be removed as necessary to provide access to the damaged area. Upon completion of the repair activity, fixtures and trim shall be reinstalled, nails set, filled, and items repainted or, refinished to restore them to their original condition. When removing wall or ceiling coverings, the Contractor shall inspect the supporting structural system and notify the COTR immediately of any need for repair before proceeding. Wall materials may contain asbestos, and painted surfaces may contain lead, both which shall require special handling and disposal in accordance with Paragraph 6.0, Environmental Management Support. Any paint shall meet the requirements of the MSFC Pollution Prevention Plan for low VOC paint.
- a. Drywall Construction Cracks, small dents, and holes shall be repaired with spackle over a backing plate when necessary. Spackle shall be feathered on the adjacent surfaces. Patches shall consist of at least three (3) coats with each completely dry before applying subsequent coatings. The final coat shall be lightly sanded and wiped with a damp cloth or sponge to remove all dust and cement deposits from surrounding surfaces. Loose nails or screws shall be pulled and replaced with a new nail or screw approximately one (1) inch away from the existing hole and driven in to form a slight dimple in the surface. The dimple and the existing nail or screw hole shall be filled and finished with spackle. Holes and other defects in wallboard between two (2) studs or beams shall be repaired by removing a rectangle of gypsum board to the center

of the adjoining studs or beams and two (2) parallel lines across the board. Cuts shall be neat and shall not tear the paper covering. Edges of abutting sheets shall be sanded to allow for cement build-up in the joint. Replacement of gypsum board shall be of the same thickness and texture as the adjacent sheets and shall be nailed or screwed into place onto the exposed studs or beams. Joints shall be taped and spackled using the procedure outlined above; reinforcing tape shall be embedded, wrinkle-free, and the first layer centered over each joint.

- b. Vinyl Wall Covering Wall covering which has been ripped, scarred, stained, or otherwise damaged shall be repaired or replaced as necessary. Wall covering shall be repaired if the damaged area can be patched and not be noticeable. The patch shall overlay the damaged area 1/2-inch on all sides and be continuous with the pattern of the wall covering. The patch shall be glued in place with an adhesive conforming to the wall covering manufacturer's recommendations. Wall covering which is extensively damaged or for which a matching wall covering is not available shall be repaired by replacing the wall covering on the entire wall. If matching wall covering is not available, the Contractor shall find a comparable substitute. The COTR shall approve all replacement wall coverings which do not match the existing wall coverings. Replacement wall covering shall be hung according to the manufacturer's recommendations.
- c. Ceramic Tile Ceramic tile walls, window stools, and marble saddles that are broken, missing, cracked, or discolored shall be replaced as required to match existing. Tiles shall be re-grouted to provide a waterproof seal. In those cases where replacement tiles of an exact match cannot be found, the Contractor shall remove and replace non-defective tiles to create a pattern and minimize the visual effect of the mismatch.
- d. Hardboard Siding Damaged hardboard siding shall be removed without damaging adjacent siding or underlayment. All replacement siding joints shall be located on studs and nailed at each stud. Replacement siding shall match the existing siding in color, texture, and material. Siding face and edges shall be factory primed. Nails shall be of the type and size specified by the manufacturer and shall be driven flush. A 1/16 inch space shall be left between the siding and wood or metal trim. All joints shall be caulked.
- e. Wood Trim Wood trim items shall be prime painted on all sides and edges prior to installation. Surfaces to receive trim shall be thoroughly cleaned of sealant and paint build-up prior to installation of trim. Damaged or deteriorated insulation board or underlayment shall be replaced with material of the same type, thickness, and quality.

- f. Suspended Ceilings Broken and stained ceiling tiles shall be replaced with tiles of the same material, style, size, and color. Damaged and broken suspended grid system shall be repaired and/or replaced as necessary to provide a suspended ceiling system as designed.

3. General Exterior Work

- a. Exterior Walls Damaged or deteriorated wall areas shall be restored to a serviceable, structurally sound, watertight, and weathertight condition. This includes, but is not limited to, replacing damaged masonry units, tuck-pointing loose or eroded mortar joints, sealing penetrations in wall openings, replacing damaged or deteriorated siding and exterior trim, replacing miscellaneous hardware items, and removal of vegetation, discoloration, graffiti, or other defects which would render an unsightly appearance to exterior walls.
 - b. Seams Seams between window or door frames and exterior walls shall be caulked. Old joints shall be scraped and cleaned with a solvent recommended by the caulking manufacturer. Caulking shall be applied according to the manufacturer's directions.
 - c. Exterior Trim Exterior trim, including all exterior moldings, millwork, shutters, and cornice shall be repaired or replaced as required. Surfaces to receive trim shall be thoroughly cleaned of sealant and paint build up prior to installation of trim. Damaged or deteriorated insulation board underlayment shall be replaced with new material of the same type, thickness, and quality. Bird screens and soffit vents shall be intact and free of corrosion and missing pieces. All wood trim items shall be primed prior to installation and painted to match surrounding surfaces. Any paint shall meet the requirements of the MSFC Pollution Prevention Plan for low VOC paint.
4. Doors, Windows, and Screens Doors (including storm doors), windows (including storm windows), and screens shall operate smoothly without binding or sticking in accordance with the manufacturer's design. Damaged, deteriorated, or missing doors, windows, screens, and associated components shall be repaired or replaced as required. Caulking, glazing, and weather stripping shall be fully intact to maintain a fully weathertight seal.
- a. Wood Doors All exterior wood doors shall have solid cores. Wood exterior doors shall be water-repellent treated. Interior wood doors shall be of the same species and have the same finish as the original door. Replacement exterior doors shall be installed during the same workday as removal of original door. Scarred areas of door shall be sanded, wiped clean with a low toxicity solvent, sealed, and finished to match

surrounding door surface. All replacement doors shall be installed with the hardware from the damaged door unless the hardware is unrepairable. Small holes in door faces shall be filled and finished to match surrounding door surface. Doors shall be planed (to include appropriate bevel) to provide a minimum 1/16-inch clearance after painting between door and adjoining head and jambs. The bottom of the door shall be trimmed to provide adequate clearance above the floor.

- b. Screens and Screen Doors Oxidation deposits shall be removed from metal parts. The affected area shall be cleaned and a protective coating of paste wax shall be applied. Replacement screening shall be of the same material as existing screening. Exposed screening ends shall be cemented with a colorless plastic cement. No exposed screening ends shall protrude from the screen. Warped screen doors and frames shall be straightened if possible to fit squarely in opening. If beyond repair, warped items shall be replaced.
 - c. Windows Damaged, deteriorated, missing, or inoperative window components shall be repaired or replaced to provide a sound, serviceable, weathertight installation.
 - d. Weather Stripping Damaged or deteriorated weather stripping shall be replaced according to manufacturer's recommendations. Flattened spring type weather stripping shall be lifted or replaced to provide a better seal
 - e. Glass The Contractor shall replace cracked or broken glass in doors or windows. Replacement glass shall be of the same size, type, and quality as the existing glass.
 - f. Door Accessories The Contractor shall install, maintain, repair, and adjust locks, latches, panic devices, and strikes of different makes, sizes, and shapes installed in buildings and building components. The Contractor shall also install, repair, clean, repack, and adjust all makes and types of door closures.
 - g. Hardware Damaged, inoperable, or missing hardware such as hinges, locks, striker plates, latches, keepers, window operating mechanisms, door closers, springs, etc., shall be adjusted, repaired, or replaced as required. Replacement hardware shall match existing hardware in type, size, quality, finish, and meet the BHMA Product Standards. Hardware shall be installed in accordance with the manufacturer's recommendations.
5. Countertops Countertops with loose protective covering shall be repaired in place. Loose joints shall be secured and filled. Countertops and backsplash

shall be the fully formed type comprised of a single unit with the shaped edges using wood nose molding at counter edge and covered wood molding or shaped wood block at juncture of the countertop and backsplash. Size and shape of countertop shall be indicated; backsplash shall not be less than 3-1/2 inches high.

- a. Plywood Countertop Material Plywood core material and particle board core material shall be per TRSC-4.
 - b. Countertop Adhesive The adhesive for bonding plastic laminates, edging, and trim to the core material shall be a rubber-base contact cement.
 - c. Countertop Laminates Laminates shall be applied in the longest length practicable. Joints in surface sheeting shall be tight and flush and kept to a practicable minimum. Design, color, and finish shall be selected per the delivery order, or by the COTR when none is specified.
 - d. Metal Trim Damaged metal trim shall be removed and replaced with trim of the same configuration and finish. Joints shall be mitered and smooth. All such trim shall match for an acceptable appearance.
 - e. Sink Rims Sink rims shall be of the clamping type and a standard product of a manufacturer regularly producing this type of equipment, and shall be fabricated from corrosion-resistant steel of the size necessary to receive a sink.
 - f. Cabinet Bases Wood or plastic laminate cabinets which are damaged shall be repaired or replaced. All exposed items shall match for an acceptable visual appearance. Hardware items shall conform to the original or TRSC-4 for institutional applications. Exposed hardware shall be corrosion resistant.
 - g. Kitchen Cabinets Replacement cabinets shall conform to the original or TRSC-4.
6. Bathroom Accessories This item shall include, but not be limited to, paper holders, soap trays and dispensers, towel bars, and shower curtain rods. Damaged or deteriorated, or missing accessories shall be repaired, or replaced if beyond repair.
 7. Caulking Damaged caulking around sinks, shower stalls, tiles, and accessories shall be chiseled out and replaced with a mildew resistant, silicone base sealant. The sealant shall be applied according to manufacturer's recommendations.

8. Temporary Structures Anchor and level temporary structures, primarily modular buildings or trailers.
 9. Metal Door Frames and Windows Remove and install metal door frames and windows in concrete masonry units and concrete walls.
 10. Nameplate Holders Missing or damaged nameplate holders shall be replaced with holders of the same type and quality as the existing ones. Loose screws shall be tightened and reseated as necessary.
 11. Laying Block Mixing mortar, determining correct type of material and mixture; running lines and levels as required; and cutting, shaping and laying bricks, stone, or block.
 12. Masonry Units Damaged masonry units (brick or concrete blocks) shall be replaced with a unit of the same size, color, and texture. The mortar shall be completely removed and the cavity cleaned and all debris removed. The masonry unit shall then be reseated in mortar and the remaining cavity packed with mortar. The masonry unit shall be painted to match existing units. Any paint shall meet the requirements of the MSFC Pollution Prevention Plan for low VOC paint.
 13. Foundations and Walls Constructing, maintaining, and repairing foundations and walls, brick, concrete masonry unit, and wood.
 14. Mortar Joints Damaged mortar joints shall be chipped out, cleaned, and dampened before being repointed. Repointed joints shall match existing undamaged joints.
 15. Interior Concrete Cracked, broken, or spalled areas shall be patched with a nonshrinking cement mortar. Areas shall be cleaned and all loose concrete removed. Underlying surfaces shall be chipped to ensure bond with the patch. Shallow spalled areas shall be chipped to provide space for an adequate patch thickness. The patch shall be finished even with the adjacent surfaces and finished to match existing texture.
 16. Placing Concrete Mixing, placing, and finishing of concrete, including placing reinforcements, and other embedded items.
- B. Metalworking The Contractor shall maintain, repair, and replace metal components of buildings and structures; install building equipment, such as exhaust fans; and shall construct and install metal components in support of other repair activities. Metalworking shall include heating and bending to form metal shapes, drilling, torch cutting, grinding, sawing, and fitting of metal parts. Metalworking responsibilities shall also include the full range of metalworking and sheet metal activities that include, but are not limited to:

1. Welding Welding provides the necessary support to the other trades in accomplishment of their work and shall include, but not be limited to, pipes, structural forms, plates, railings, sheetmetal, bar stock, and machinery in the maintenance of building structures, public utilities, transportation, and construction equipment. All welders shall be journeyman level and shall be certified to the proper American Welding Society standard. Work may include the build up metal surfaces of equipment for machining, braze and silver solder various metals, pre-heat items to be welded by torch, stress relieving, and annealing. Use various electric arc or gas welding methods. The following safety precautions are to be followed for all welding work accomplished by the Contractor.

Fire Watch Welding, burning, and open flame work will be permitted, but only subject to the following conditions:

- (1) The Contractor shall provide an adequate firewatch and the required fire extinguishing equipment. The fire alarm system shall be deactivated or re-routed during welding, and immediately restored afterwards.
- (2) The Contractor shall obtain the proper permits required.

2. General Sheetmetal The Contractor shall interpret blueprints, drawings, sketches, and work orders; use templates or patterns as guides in laying out and cutting materials from a variety of sheetmetal stocks including aluminum, copper, galvanized and stainless steel; form single-hem and double-hem edges, seams, and flanges; layout and cut materials for any combination of shapes, allowing for seams, joints, laps, and shrinkage; shear, bend, and form metal parts into desired shapes with hand and power tools and equipment; determine dimensions by application of basic shop mathematics and use of scribing tools, dividers, rules, and other measuring devices; use such equipment as shears, brakes, bending machines, and associated hand tools; repair, position, and clamp work; preheat metal and maintain heat to prevent distortion; use templates, jigs, blueprints, and other guides to repair, modify, or fabricate metal items for all types of equipment. Join parts by riveting, soldering, and spot welding. Semi-concealed hinges shall be of Type I through V materials, per BHMA Standards. Fasteners for hardware or particleboard core elements shall be of the through-bolt type.

- C. Pipefitting The Contractor shall layout, cut, bend, assemble, and install pipe, fittings, and fixtures to construct or maintain piping systems such as steam heating, hot water heating, hydraulic, shop air, chilled water systems, oil line systems, domestic water, deionized water, fire water, natural gas, storm drains, and sanitary sewer systems at MSFC. Lay out piping systems or sections from blueprints, work orders, sketches, or drawings and plan assembly in relation to walls, passageways, obstructions, existing underground utilities, underground

trenches, location of machinery, and determine appropriate places for holes, clamps, struts, hangers, and similar considerations. Cut, bend, thread, weld, solder, and assemble pipe fittings, using various types of shop machinery and equipment. Pack pipe as necessary to avoid flattening during bending operations. Makeup various kinds of pressure tight joints, such as threaded, flame-bolted, flange-welded, soldered, silver soldered, caulked lead, and cemented. Bore holes in partitions, walls, floors, ceilings, and other obstructions to permit passage of pipe, exercising care to avoid impairing structures to be passed through. Install piping and any necessary hangers, brackets, and other supporting fixtures, position and align pieces for welding where required. Position, secure, and connect to piping systems various fixtures such as radiators, toilets, urinals, sinks, laundry equipment, food preparation equipment, pumps, and tanks. Install various types of hand controlled and automatic valves, traps, thermostats, and similar devices. Pack, adjust, and repair valves of various types. Repair leaks, clear obstructions in piping, and make changes and adjustments to obtain proper circulation and flow.

D. Painting The Contractor shall prepare surfaces, mix paints, and apply prime, intermediate, and finish coats. Paint includes all enamels, paints, varnishes, stains, and other coatings whether primer, intermediate, or finish coat. Paint used in touchup painting shall blend with the color and texture of surrounding areas. Touchup painting shall be accomplished as a related item to a maintenance activity. Painting shall be limited to the \$2,000 limit associated with the Service Contract Act.

E. Painting Responsibilities Painting responsibilities shall include, but are not limited to, determining type of paint best suited for the job, mixing colors for consistency needed to accomplish the work, performing stenciling of signs, preparing and working on a variety of surfaces such as metals, wood, and masonite; repainting and touching up building numbers and signs in place on buildings, structures, and appurtenances, painting all repairs (paint used for areas); moving, resetting, and protecting furniture, equipment, and all Government-owned property during the work performance period. The Contractor shall comply with the requirements of the MSFC Pollution Prevention Plan for low VOC paint and all other environmental directives, instructions, policies, and regulations as listed in Attachment J-26.

1. Material Paints shall be in sealed containers that plainly show the designated name, formula, or specification number, batch number, and name of manufacturer, all of which shall be plainly legible at the time of use. Pigmented paints shall be furnished in containers not larger than five (5) gallons. The use of paint containing lead is strictly prohibited for painting any surface. Upon request from the COTR, the Contractor shall furnish a suppliers' record of batch production data and test results for each batch, except that batch production data may be limited to weight per gallon, viscosity, fineness of grind, drying time, color, and gloss. When the

required quantity of material of a particular color is five (5) gallons or less, a proprietary brand of material similar to that specified above may be used.

2. Plaster or Wallboard Surfaces Damaged surfaces shall be repaired. Surfaces which chalk severely shall be prepared with conditioner.
3. Wood Surfaces Woodwork, including cabinets and doors, shall be repaired. Surfaces painted with a gloss or semi-gloss paint must be dulled with a surface conditioner. Knots and resinous wood should be treated with a knot sealer.
4. Wood Windows and Doors Window screens and door screens shall be removed before painting. All screen frames shall be painted on faces and edges and allowed to dry; then replaced and fitted. Window runners shall not be painted, but cleaned and coated with boiled linseed oil.
5. Ferrous Metal Surfaces All ferrous metal surfaces shall be spot primed. These surfaces shall be scraped, wire brushed, and washed clean before painting. Exposed nails and other ferrous metal on or in contact with surfaces to be painted with water-thinned paint shall be spot-primed first.
6. Galvanized and Zinc Copper Alloy Surfaces All galvanized surfaces shall be cleaned with a phosphoric acid wash and spot primed with galvanized surface primer.
7. Masonry and Concrete Surfaces All masonry and concrete surfaces shall be roughened where necessary to provide adhesion. Previously painted areas shall be dulled with a surface conditioner. Surfaces which chalk severely shall be prepared with a conditioner, such as a five (5) to ten (10) percent muriatic (hydrochloric) acid. Surfaces which experience water leakage shall be coated with epoxy paint.
8. Pipe Coverings Pipe coverings shall be brushed with a stiff fiber brush and sizing applied to bare surfaces of covering for adhesion.
9. Electrical Fixtures Electrical outlet covers, switch covers, and fixtures shall be masked or removed before painting and uncovered or reinstalled prior to work completion.
10. Application of Paint Interior paint shall be applied in dust free conditions in accordance with the manufacturer's recommendations. Exterior paint shall not be applied on rainy, foggy, or windy days. The outdoor or indoor temperature shall be within the manufacturer's recommendations before the next coat is applied. Each coat shall be prepared in accordance with the paint manufacturer's recommendations. Each coat of paint shall be of sufficient thickness to completely cover the previous coat or surface. Each

coat shall be sanded and dusted as prescribed by the paint manufacturer to produce a finish smooth and free from runs, sags, or other surface preparation defects. Paint surfaces adjoining other materials or colors shall be sharp and clean without overlapping. Stuck windows shall be freed to assure ease of operation within five (5) days following completion of work.

F. Plumbing The Contractor shall repair or replace water lines, drain lines, and fixtures. Pipes containing lead shall not be used. Additional work includes, but is not limited to, cleaning out sluggish sinks and sink traps; replacing parts such as valves and traps; recaulking various plumbing fixtures; resetting toilets, urinals, sinks, fixture stops, supply lines; repairing or replacing flush valve assemblies, continuous waste arm assemblies, auxiliary valves, escutcheons, pistons, diaphragms, and handles to flush valves; replacing spuds and spud washers, vacuum breakers, tail pipes, and flush valves; replacing shower heads and necks; replacing plumbing brass, gas connections, stops, toilet seats, and water tank covers; taking general visual inspection of all plumbing fixtures and pipes; making minor repairs, including tightening bolts, nuts, and pipe connections; repairing drinking fountains; and repairing or replacing hot water heaters.

1. Clogged Toilet, Urinal, or Sink Drains Work may include disassembly of fixture, exterior or interior piping and traps, and cleaning out pipes. Removal of any fixture requires the replacement of all bolts, nuts, washers, wax seals, and caulking. All slip joint washers are to be replaced with new after each removal.
2. Loss of Water Pressure If loss of water pressure occurs within the piping, the Contractor shall determine the source of the problem and repair it as quickly as possible. Work may include disassembly and removal of interior piping, cleaning out of piping, or replacing of existing piping with new piping of like materials.
3. Overflowing Plumbing Fixtures The water supply shall be turned off in the event of an overflowing plumbing fixture. Faulty valves/faucets and blockages shall be repaired and the service restored within 48 hours. The Contractor shall remove water from floors and repair any damage.
4. Backflowing Floor Drains and Disposal Units Backflowing floor drains and disposal units shall be treated as clogged drains discussed above.
5. Loss of Hot Water The water supply shall be turned off in the event of leaking hot water pipes or water heaters. Leaking piping or water heaters shall be repaired or replaced and service restored as quickly as possible. While performing the needed repair or replacement, the Contractor shall also repair any damage caused by the defective item to restore the building or facility to its original condition. For example, replacement of a leaky

pipe shall also include repair of water damage to the surrounding walls, floor, and/or ceiling.

6. Sump and Ejector Pumps If the pumps are not operational, the systems involved are to be shutdown and affected restrooms tagged "out of order". The Contractor shall determine the source of the problem and make repairs.: System shall be restored to normal operations within one (1) working day. If pump failure requires leadtime for delivery of parts or components, a temporary pump of adequate size shall be installed in its place until the proper components become available.

- G. Electrical The Contractor shall be responsible for electrical work which includes but is not limited to: installation, maintenance, repair or removal of low voltage electrical circuits, panelboards, motor control centers, building loadcenters, power distribution systems, and equipment. Electrical work shall be limited to interior and exterior distribution systems up to 600 Volts. This includes appliance equipment, power tools, and industrial and office building distribution needs.

Relamping For non-office areas, the Contractor shall remove and replace all interior incandescent light bulbs and fluorescent tubes that have burned out or been broken, and other defective parts such as, but not limited to, ballasts, starters, etc. Leaking or smoking ballasts may contain PCB's and shall be managed in accordance with Paragraph 6.0, Environmental Management Support. Burned out bulbs, lamps, and troubling bulbs or lamps reported by customers will be considered a TC and shall include cleaning of lenses, reflectors, and luminaries, to obtain maximum lighting output. Energy saving lamps shall be used for relamping when applicable. Fluorescent bulbs shall be placed back in original packing and provided to the Environmental Engineering Department contractor for disposal if required.

- H. Roofing The Contractor shall repair or replace damaged, deteriorated, or missing roofing, sheathing, flashing, gravel stops, miscellaneous roof structures and components, and structural supports as required to provide a watertight seal and to retain the original condition of the roof system. The Contractor shall accomplish temporary repairs under wet conditions to protect Government property and personnel. Durable permanent repairs shall be completed as soon as conditions allow. All roofing work shall be in accordance with the original installation or TRSC-4. All roofing materials applied shall be per the manufacturer's recommendations. Some roofing may contain asbestos that shall require special handling and disposal by the Contractor in accordance with Paragraph 6.0, Environmental Management Support.
- I. Pest control for cafeteria or snack bar areas shall be such that no insects are found in food preparation, serving, or eating areas except at bait traps. Insects found in any other MSFC facilities between treatment periods shall result in

immediate re-treatment at no cost to the Government. The cafeteria located in Building 4708 is not part of this contract.

ATTACHMENT J-1

10.0 MECHANICAL SYSTEMS

10.1 GENERAL REQUIREMENTS

The Contractor shall provide all labor, supervision, materials, lubricants, oils, tools, equipment, transportation, and management necessary to accomplish the operation, predictive maintenance, preventive maintenance (PM), trouble calls (TC), and repair of mechanical equipment and systems that includes, but not limited to: air compressors, roll doors, air dryers, elevators, cranes, and associated equipment identified in Attachments L-12, J-24, and J-25.

10.2 LUMP SUM WORK

The following contract elements shall be performed per the Performance Requirements Summary (PRS), Section E.10, at the frequencies or performance criteria specified within the contract requirement:

- A. Contract Element (Include in CLIN - 00X1.0401) Trouble Calls (TC) The Contractor shall respond to all TCs related to this paragraph and accomplish any necessary repairs per Paragraph 4.0, Trouble Calls/Trouble Call Services.
- B. Contract Element (CLIN - 00X1.1001) Horizontal and Vertical Sliding Roll Door PM The Contractor shall perform PM for the roll doors listed in Attachment J-24 and in accordance with Paragraph 10.5.F. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- C. Contract Element (CLIN - 00X1.1002) Hoist, Crane, and Derrick PM The Contractor shall perform PM for hoists, cranes, and derricks listed in Attachment J-18 and in accordance with crane manufacturers operations and maintenance manuals and recommendations. The Government has determined that certain preventive maintenance and predictive testing and inspection shall be performed for this contract line item as enhancements to the existing PM program. These enhancements are as follows: Perform monthly inspection of all wiring terminations and wiring harnesses. Perform monthly infrared analysis on all electrical components. Perform annual vibration analysis on all electric motors. Documentation for the infrared analysis shall be the completed work order controlling the work. Documentation for the vibration analysis shall be the base documentation and the following annual inspections maintained in the predictive testing program by the Contractor.

- D. Contract Element (CLIN - 00X1.1003) Elevator PM The Contractor shall perform PM for elevators listed in Attachment J-24 and in accordance with Paragraph 10.5.E, Maintenance Requirements and Procedures.
- E. Contract Element (CLIN - 00X1.1004) Heavy Equipment Operation The Contractor shall provide operation and operator maintenance of heavy equipment including fixed equipment such as bridge and derrick cranes, hoists, and air bearings and mobile equipment such as truck-mounted cranes, bull dozers, and lift trucks. This shall include loading, securing, off loading, hauling of heavy and oversized cargo. As a part of heavy equipment operations, the Contractor shall insure all non-mobile equipment is in compliance with appropriate ANSI and OSHA proof load testing requirements. Heavy equipment shall be available 100 percent of the time. The Contractor shall not provide maintenance (i.e., oil changes, minor repairs, major overhauls, etc.) of mobile equipment. The Contractor shall rig cranes and loads, fabricate wire rope slings, chokers, and rigging, load test lifting devices, and secure cargo on common and special conveyances. Fabrication of rigging equipment and load testing lifting devices to meet requirements shall be completed within fifteen working days. Maintenance timeliness shall be the same as for trouble calls.

In addition to the equipment identified in Attachment J-8, MSFC owns a special purpose transport truck that has the capability to raise, lower, and level its bed. The truck can transport up to 795,000 pounds at a speed of 6 miles per hour and shall be operated by the Contractor with certified operators.

- F. Contract Element (CLIN - 00X1.1005) Handling and Transporting Program Critical Hardware (PCH) The Contractor shall provide the necessary special support services to handle and transport PCH at MSFC in accordance with NASA and MSFC Standards and Instructions specified below. The Contractor shall insure that all fixed cranes and related lifting equipment and tools are available and capable to meet the PCH move schedule 100 percent of the time.
- G. Contract Element (CLIN - 00X1.1006) Deionized (DI) Water Operations and PM The Contractor shall operate and maintain the DI water systems in Buildings 4700 and 4487. Building 4705 houses a DI water system that may be used as a backup to the primary system in Building 4700. The system in Building 4487 supplies Building 4487 only. The Contractor shall operate all DI Water Systems to produce the quality and quantities necessary to meet customers needs at the following purity specifications: Bldg 4487 B-Wing 10-18 megohm/cm; 4487 C-Wing 10-18 megohm/cm; and Bldg 4700 minimum specific resistance of 1 megohm/cm with pH between 6.0 and 9.0. Water quality at Building 4700 should also meet the following particulate requirement per 500 ml: Five or less particles ranging in size between 100 to 175 microns and no particles ranging in size greater than 175 microns. Since the system at Building 4700 was not designed to meet the particulate requirements, the

Contractor is to monitor particulate so the Government may consider an alternate means to ensure particular requirements are met. The primary storage vessel for DI water has a capacity of 50,000 gallons and should be maintained at a level necessary to meet customers needs. Maintenance timeliness shall be the same as trouble calls. The Contractor shall have written operating procedures for this facility. These procedures shall be available for Government inspection at all times. The Contractor shall perform PM on all DI water equipment as listed in Attachment J-24 in compliance with the Contractor's PM plan.

- H. Contract Element (CLIN - 00X1.1007) Industrial Wastewater Treatment Facility (IWTF) Operations and PM The Contractor shall operate and maintain the IWTF in accordance with MSFC State Indirect Discharge (SID) permit (IU084500027). The IWTF has the capacity to treat 50,000 gallons per day of metal finishing wastewater, and 5,000 gallons per day of paint booth and water blast wastewater. Maintenance timeliness shall be the same as for trouble calls. Sample collection and reporting are included with Paragraph 6.0, Environmental Management Support. Historical data for operation of this facility is included in Attachment L-20. The Contractor shall have a written operating procedure for this facility. These procedures shall be available for Government inspection at all times. The Contractor shall perform PM on all IWTF equipment as listed in Attachments J-24 and J-25 in compliance with the Contractor's PM plan.
- I. Contract Element (CLIN - 00X1.1008) Groundwater Treatment System Operations and PM The Contractor shall operate and maintain the interim action Groundwater Treatment System in the West Test Area in accordance with the MSFC Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) permit. Maintenance timeliness shall be the same as for trouble calls. The Groundwater Treatment System has the capacity to treat 2,800 GPM of wastewater contaminated with volatile organic compounds to 5 micrograms per liter (ug/l). Sample collection and reporting are included with Paragraph 6.0, Environmental Management Support. An equipment list associated with the operation of this system is included in Attachment L-20. The Contractor shall perform PM on all ground treatment system equipment as listed in Attachments J-24 and J-25.
- J. Contract Element (CLIN - 00X1.1009) Air Compressor PM The Contractor shall perform PM for all air compressors listed in Attachment J-24 in accordance with manufacturer recommendations.
- K. Contract Element (CLIN - 00X1.1010) Air Dryer PM The Contractor shall perform PM for all air dryers listed in Attachment J-24 in accordance with manufacturer recommendations.
- L. Contract Element (CLIN - 00X 1.1011) Aeration Basin and Chemical Feed Operation and PM The Contractor shall operate and maintain the aeration basin and chemical feed system at the National Pollution Discharge

Elimination System (NPDES) discharge point DSN-001 located at the industrial sewer out-fall at Indian Creek. This system shall be operated in accordance with the NPDES Permit requirements. Maintenance timeliness shall be the same as for trouble calls. Sample collection to verify chlorine concentration and reporting shall be performed by others. Initial preventative maintenance of the system shall include: changing of oil and greasing the air compressor monthly; cleaning filters and tubing associated with the chlorine and analyzer once a week; changing out the reagents used in the chlorine analyzer as needed; calibrating the chlorine analyzer each time the reagents are changed out; changing out the water filters on the chlorine analyzer system when needed (estimated once every 30 days); cleaning out sediment buildup within the aeration basin once a month. After the first six months of operation, the Contractor may propose revised PM frequencies or incorporate the use of PT&I provided this is supported by technical rationale that is beneficial to the Government. The Contractor shall also immediately notify the AD10 office of any system malfunctions. Historical information is included in Attachment L-19.

- M. Contract Element (CLIN - 00X1.1012) Ice Machine PM The Contractor shall perform PM for all ice machines listed in Attachment J-24 in accordance with manufacture recommendations.
- N. Contract Element (CLIN - 00X1.1013) Special Purpose Shop Equipment PM The Contractor shall perform PM for special purpose shop equipment listed in Attachments J-8 and J-24 in accordance with manufacture recommendations.
- O. Contract Element (CLIN - 00X1.1014) Annual Crane and Hoist Inspection The Contractor shall procure the services of an independent crane inspector to perform annual crane and hoist inspections in accordance with DRD 987LS-013.
- P. Contract Element (CLIN - 00X1.1015) Elevator Inspection The Contractor shall procure the services of an independent elevator inspector to perform annual inspections in accordance with DRD 987LS-014 and a five-year inspection in accordance with DRD 987LS-015.

10.3 DOCUMENTATION AND REPORTING REQUIREMENTS

Contract Element (CLIN - 00X1.1016) Maintenance Procedures The Contractor shall provide maintenance procedures in accordance with DRD 987LS-011. The Contractor shall update and revise all maintenance procedures on a continuing basis as required by physical changes at no additional cost to the Government (see Paragraph 10.5.E, Maintenance Requirements and Procedures). Maintenance procedures shall be maintained in the TRL.

10.4 IDIQ WORK

IDIQ work will be ordered in accordance with Paragraph 1.6, IDIQ Work, and may be ordered for any facility or area at MSFC involving Mechanical Systems Maintenance and Repair. IDIQ work shall be completed within the number of days specified on the FWR or DO.

- A. Repair Leaking Joints The Contractor shall accomplish the repairs of leaking piping joints, filters, regulating valves, dryer piping joints, compressor gasket and piping joints, vacuum pump gasket and piping joints, and hydraulic piping, cylinders, electrical indicators, controls, and gasketed areas on man lifts. Allowable Leakage: NONE.
- B. Gate Valve(s) The Contractor shall remove the existing and install new gate valve(s).
- C. Globe Valve(s) The Contractor shall remove the existing and install new globe valve(s).
- D. Copper Tubing The Contractor shall remove the existing and install new copper tubing and associated fittings.
- E. Galvanized Steel Piping The Contractor shall remove the existing and install new galvanized steel piping and associated fittings.
- F. Air Pressure Gauge The Contractor shall remove the existing and install new air pressure gauges.
- G. Pressure Regulators The Contractor shall remove the existing and install new pressure regulators.
- H. Oil/Water Separator The Contractor shall remove the existing and install new oil/water separator.
- I. Air Compressor The Contractor shall remove the existing and install new air compressor(s).

10.5 DETAILED SPECIFICATIONS

- A. Interferences The Contractor shall remove and reinstall interferences necessary to accomplish PM and repair as required by this work paragraph.
- B. Pressure Testing The Contractor shall accomplish pressure testing for leaks when repairs or alterations are made involving the integrity of gas, vacuum,

lubricating oil, and hydraulic systems while conducting maintenance or repair. If the repair requires a mechanical joint be disconnected and reconnected or a weld repair is required, the pressure test shall be visually inspected at operating pressure after ten (10) minutes of operation. If the system is altered or a replacement component is installed, excluding gaskets, the pressure test shall meet the same requirements as the original installation specification. If the repair is made to a buried section of the system, the pressure test shall be accomplished prior to covering the repair area. Allowable leakage: NONE.

- C. Forms The Contractor shall obtain, fill-out and adhere to all NASA MSFC required permit forms: including, but not limited to burn permit, confined space entry permit, dig permits, and all tag-out, lock-out procedures.
- D. Painting The Contractor shall prepare, prime and paint all new and disturbed surfaces to match the surrounding area as a result of the requirements of this contract paragraph and Paragraph 6.0, Environmental Management Support for disposal.
- E. Maintenance Requirements and Procedures The Contractor shall maintain all equipment in optimum operating condition and control. All mechanical systems under this paragraph shall be operational, functional, and ready to respond to demand according to its design purpose and intent. Any unscheduled or unplanned outage of these systems listed in Attachment J-10 shall not exceed those occurrences and times specified in Attachment J-10. Times listed in Attachment J-10 are referred to as the "outage limit," with the exception for scheduled or planned outages. For work that exceeds the TC limit, the time expended by the Contractor prior to the Contractor notifying the COTR of such condition shall be applied towards the outage limit. All other time will not be counted towards the outage limit for work exceeding the TC limit (reference note G. on the Systems Availability Requirements Table in Attachment J-10). Planned outages for maintenance and repair shall follow standard labor hours and practices per the Means® Facilities Maintenance and Repair Cost Data Handbook. Any time exceeding published labor hours may count towards the outage limit.

The Contractor shall prepare maintenance procedures per the following guidelines: (1) manufacturer's instructions; (2) industry standards and codes, (3) Federal, state, and local regulations, and (4) procedures outlined in NASA publications. The Contractor shall prepare maintenance procedures in accordance with DRD 987LS-011.

- F. Horizontal and Vertical Sliding Roll Doors Horizontal and vertical sliding roll doors shall operate smoothly without resistance. Railings shall be checked for alignments. Rusted or corroded areas shall be repaired or replaced. All bearings, rollers, gears, and pulleys shall be properly lubricated. All hangers, bolts, springs, and pins shall be free of rust, corrosion, and shall be tightly

mounted and secured. Motors shall operate properly and be properly lubricated. Cables and fusible links shall be properly installed and free from rust and corrosion. The Contractor shall perform PM per Attachment J-24, Horizontal and Vertical Sliding Roll Doors PM.

ATTACHMENT J-1

11.0 STEAM DISTRIBUTION SYSTEM OPERATION

11.1 GENERAL REQUIREMENTS

The Contractor shall provide all labor, supervision, incidental engineering, materials, treatment chemicals, tools, equipment, transportation, and management necessary for the yearly operation, preventive maintenance (PM), predictive maintenance, trouble calls (TC), and repair of the boiler plants, and associated steam distribution and condensate return systems, facilities, and equipment described in Attachments L-12, J-24, and J-25. The work shall include, but not be limited to, operating boilers, testing, analysis, and treatment; boiler start-up and shut-down; PM to include daily site visits for inspections, checks, and adjustments; TC and minor repair of the boilers, entire steam distribution system at MSFC, condensate return system, and associated facilities; annual boiler overhaul; annual boiler inspection, tuning, and certification; and maintaining records and preparing reports in order to provide high pressure steam (up to 200 psig) 24 hours per day, 7 days a week throughout the term of the contract period, compliant with the directives, manuals, and instructions listed in Attachment J-26. PM work shall be accomplished per Attachment J-24, Lump Sum Work. Note: The MSFC steam generation and cross-country distribution system is primarily South of Fowler Road. Most facilities North of Fowler Road are serviced by Army-provided steam.

11.2 LUMP SUM WORK

The following contract requirements shall be performed per the Performance Requirements Summary (PRS), Section E.10, at the frequencies or parameters specified within the contract requirement:

- A Contract Element (CLIN - 00X1.1101) Steam Boiler Operation The Contractor shall operate, maintain, have inspected and repaired all MSFC steam boiler plants and systems. Boilers shall operate at a minimum of 80 percent efficiency. Maintenance timeliness shall be the same as for trouble calls. The Contractor SHALL respond to emergency situations with correct repair so scheduled test programs will not be delayed. Work shall conform to Federal and State Codes, Environmental standards, OSHA regulations, and ASME power boilers, pressure vessel codes. Boiler operation includes all equipment associated with normal boiler operation such as fuel supply, condensate pump, and feed water pump. The steam boiler equipment the Contractor shall operate includes, but is not limited to, boilers listed in Attachment J-19. Failure of the Government to supply water, fuel, or electricity for plant operations will relieve the Contractor of responsibility of operations during the time period the Government

is remiss in these supply functions. If interrupted by the Government, the Contractor shall return the boiler on-line within two (2) hours of re-establishment of Government service. The Government will provide the Contractor all operational procedures that are presently available for MSFC steam boilers systems.

1. The Contractor shall operate equipment 24 hours a day, 7 days a week in accordance with Attachment J-12. Summer schedule will begin May 1st and the winter schedule will begin November 1st. The COTR will confirm actual schedule dates. A boiler log example is included in Attachment L-21.
 2. The Contractor shall perform fuel storage and transfer operations associated with boiler plant storage tanks (fuel oil to be furnished by the Government). The Contractor shall notify the Government of fuel needs allowing enough time for the Government to place an order and have the fuel delivered. This lead-time is typically one (1) week (seven (7) days)
 3. The Contractor shall prevent accumulation of boiler deposits and corrosion by carrying out a prescribed program of boiler water chemical treatment. This includes analyzing boiler and feed water, selecting chemicals and components according to formula and injecting carefully measured solutions into boiler and feed water.
- B. Contract Element (CLIN - 00X1.1102) Steam Distribution The Contractor shall maintain and repair the entire steam distribution and condensate return systems continuously, 365 days per year minimizing steam and condensate losses due to leakage. Maintenance timeliness shall be the same as for trouble calls. Steam distribution includes all steam and condensate piping both north and south of Fowler Road that falls under the responsibility of MSFC. This shall include, but is not limited to, elevated and underground steel steam supply piping and condensate return piping, fittings, valves, insulation/lagging, aluminum jacketing, expansion loops, pipe hangers, anchors, structural supports, and touch-up painting. Steam distribution includes, but is not limited to, regulator adjustment, relief adjustment, strainer or trap cleaning, and isolation and return to service. Work shall be done in accordance with Paragraph 11.5.R, Maintenance Requirements and Procedures.
- C. Contract Element (CLIN - 00X1.1103 Primary Steam Boiler PM The Contractor shall perform all primary steam generation boilers PM, listed in Attachment J-19 and in accordance with Paragraph 12.5.U, Maintenance Requirements and Procedures. All PM activities shall be accompanied in compliance with the Contractor's PM plan.
- D. Contract Element (CLIN - 00X1.1104) Boiler Feed Water Pump PM The Contractor shall perform PM on feed water pumps listed in Attachment J-24 and in accordance with Paragraph 11.5.R, Maintenance Requirements and

Procedures. All PM activities shall be accompanied in compliance with the Contractor's PM plan.

- E. Contract Element (CLIN - 00X1.1105) Condensate Pump PM The Contractor shall perform PM on steam condensate return pumps as listed in Attachment J-24 and in accordance with Paragraph 11.5.R, Maintenance Requirements and Procedures. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- F. Contract Element (CLIN - 00X1.1106) Power Boiler Annual Certification The Contractor shall provide annual certification for all primary steam power boilers. The annual certification consists of (1) Type A - internal and external, (2) Type B - internal and external with hydrostatic test, and (3) Type C - external under steam. This includes all Contractor support to the certifying agency.
- G. Contract Element (CLIN - 00X1.1107) Portable Boiler PM The Contractor shall perform all portable steam generation boilers PM in accordance with Paragraph 11.5.R, Maintenance Requirements and Procedures. All PM activities shall be accompanied in compliance with the Contractor's PM plan.

11.3 DOCUMENTATION AND REPORTING REQUIREMENTS

Contract Element (Include in CLIN - 00X1.0306) Computerized Maintenance Management System (CMMS) Operations and Management The Contractor shall continuously update the CMMS to reflect any and all equipment failures and corrective actions taken. Data shall be accurate and reflect current conditions.

11.4 IDIQ WORK

IDIQ work will be ordered in accordance with Paragraph 1.6, 1DIQ Work, and may be ordered for any facility involving Steam Distribution Maintenance and Repair. IDIQ work shall be completed within the number of days specified on the FWR or DO.

- A. Steel Piping The Contractor shall remove the existing and install new Schedule 40 seamless steel pipe, associated fittings, fasteners, gaskets, and insulation.
- B. Gate Valve(s) The Contractor shall remove the existing and install new gate valve(s).
- C. Globe Valve(s) The Contractor shall remove the existing and install new globe valve(s).

- D. Steam Tran(s) The Contractor shall remove the existing and install new steam trap(s).
- E. Pine Insulation The Contractor shall remove the existing and install new pipe insulation.
- F. Relief Valve(s) The Contractor shall remove the existing and install new relief valve(s).
- G. Access Trench The Contractor shall accomplish digging of access trench, shoring, and backfilling.

11.5 DETAILED SPECIFICATIONS

The Contractor shall accomplish the following detailed specifications and requirements in accomplishing work required by this work paragraph:

- A. Interferences The Contractor shall remove and reinstall interferences necessary to accomplish work required by this work paragraph.
- B. Forms The Contractor shall obtain, fill-out, and adhere to all NASA, MSFC required permit forms such as: burn permit, confined space entry permit, dig permit, and all lock-out, tag-out procedures in accordance with Safety and Health Requirements and Reports in Paragraph 1.0.
- C. Operation of Certified Boilers The Contractor shall not operate any power boiler that does not have a valid annual inspection certificate. The COTR shall be notified if unsafe conditions are found, following repair of a power boiler, or after any authorized modification to boilers, control equipment, or associated components.
- D. Environmental Management Support The Contractor shall handle all hazardous waste and environmental work associated with, or arising from, this work paragraph, in accordance with the requirements of Paragraph 6.0, Environmental Management Support.
- E. Replacement of Expansion Joints Replacement of joints shall consist of removing insulation, fasteners, expansion joint, and installing the new expansion joint, fasteners, and insulation.
- F. Structural Support System The Contractor shall repair or replace all deteriorated pipe hangers and supports, expansion loops, guy wires, anchor rods, screw anchors, turnbuckles, fasteners, and anchors.

- G. Valves The Contractor shall repair or replace deteriorated, damaged, and leaky valves, stems, disks, seals, packing, and gaskets. If a valve requires disassembly for repair, the Contractor shall, while the valve is disassembled, clean the bonnet, lubricate the stem, and inspect the valve for signs of deteriorated or damaged packing and broken, bent, corroded, or missing parts. After the valve is restored, the Contractor shall apply system pressure to ensure all joints are sealed, and check for seat, body, and packing leaks, and check for proper operation, correcting any defects discovered. Valves under two (2) inch shall be replaced with new valves if found defective.
- H. Traps and Y-Type Strainers The Contractor shall repair or replace all defective parts of traps and Y-type strainers such as baskets, plugs, gaskets, bellows, floats, valves, valve seats, hooks, buckets, linkages, and strainer orifices. If repair requires disassembly, the Contractor shall clean, inspect, and test the trap or strainer in the same manner as valves. The Contractor shall test traps and strainers to determine correct operation without breaking insulation.
- I. Gauge and Thermometer The Contractor shall insure all system gauges and thermometers are in good working order. The Government's Calibration Laboratory will be available should the Contractor elect to calibrate this equipment. Each gauge and thermometer shall be functional to allow safe operation of the system.
- J. Fasteners When required by deterioration, missing or damaged threads, the Contractor shall remove the existing and install new fasteners that conform original requirement or TSRC-4. Apply high temperature anti-seize compound to all boiler and associated fasteners.
- K. Gaskets When required, the Contractor shall install new gaskets conforming to the manufacturer's specifications and or the latest code and industry standards for boiler watersides and boiler firesides. Removal of existing gaskets may require special requirements per Paragraph 6.0, Environmental Management Support.
- L. Testing of Systems When repairs and alterations are made involving the integrity of the steam distribution system, the Contractor shall, after all repairs are complete, pressurize the system and check for leaks. If the repair is made to a buried section of the system, the pressure test shall be accomplished prior to covering the repair area. System shall be tested in compliance with ANSI B31.1.
- M. Insulation The Contractor shall repair or replace damaged pipe insulation as part of PM or repair. When repairing or replacing insulation, the Contractor shall inform their personnel of the possible hazards of asbestos and shall comply with the requirements set forth in accordance with Paragraph 6.0, Environmental Management Support and MSFC instructions. All replacement

pipe insulation shall match existing insulation or be installed per Technical Specification for Construction and Repair (TRSC -4).

- N. Conduit The Contractor shall repair and replace damaged electrical conduits and tighten or repair defective or loose connections to all conduits.
- O. Valve Houses and Pits The Contractor shall, while performing work in steam line valve houses and manhole pits, repair or replace defective covers, supports, guides, and ladders, and shall be alert to defects in other systems and the surrounding manhole and conduit.
- P. Water Treatment The Contractor shall provide chemical or mechanical water treatment to control corrosion to the steam boiler(s) and the steam supply and return system. Water treatment disposal shall be in compliance with the MSFC NPDES permit. Water treatment chemicals containing chromium or tributyltin shall not be used.
- Q. Painting The Contractor shall prepare, prime, and paint new and disturbed surfaces to match the surrounding surfaces, as a result of the requirements of this work paragraph in accordance with Paragraph 10.5.D, Painting, and Paragraph 6.0, Environmental Management Support for disposal.
- R. Maintenance Requirements and Procedures The Contractor shall maintain all equipment in optimum operating condition and control. All equipment shall be operational, functional, and ready to respond to demand according to its design purpose and intent except for scheduled or planned outages. Note: Scheduled and planned outages for buildings 4663 and 4207 will be very difficult to obtain and most likely will only be available during a holiday period such as Christmas. For unscheduled and unplanned outages, the steam distribution system under this paragraph shall be down no greater than those occurrences and times specified in Attachment J-10, herein referred to as the "outage limit." For work that exceeds the TC limit, the time expended by the Contractor prior to the Contractor notifying the COTR of such condition shall be applied towards the outage limit. All other time will not be counted towards the outage limit for work exceeding the TC limit (reference note G. on the Systems Availability Requirements Table in Attachment J-10). Planned outages for maintenance and repair shall follow standard labor hours and practices per the Means® Facilities Maintenance and Repair Cost Data Handbook. Any time exceeding published labor hours may count towards the outage limit.

The Contractor shall prepare maintenance procedures per the following guidelines (1) manufacturer's instructions; (2) industry standards and codes, (3) Federal, state, and local regulations; and (4) procedures outlined in NASA publications. The Contractor shall prepare maintenance procedures in accordance with DRD 987LS-011.

S. Operating Records and Logs The Contractor shall maintain operating records, laboratory records, maintenance records, and emergency condition records. The Contractor shall keep all operation, maintenance, and repair records orderly, readily accessible, and simply referenced in such a manner to be quickly accessed by all authorized Government authorities at any time. The Contractor will continuously update the CMMS to reflect any and all equipment failures and corrective actions taken.

1. The Contractor shall provide, maintain, and post current signs and instructions including, but not limited to, no smoking, electrical and chemical hazard warning signs, routine daily instructions, and routine laboratory analyses procedures required by the COTR and Federal, state, and local regulations.
2. The Contractor shall maintain a bound logbook for each boiler in operation identifying the operator's name, date, time, observations made, checks of flame failure and low water cut-off devices, meter readings, operational changes, and all other maintenance performed during each visit.
3. The Contractor shall maintain a daily record of all treatment chemicals used and of all laboratory analyses performed.

ATTACHMENT J-1

12.0 HVAC/R SYSTEMS

12.1 GENERAL REQUIREMENTS

The Contractor shall provide all labor, supervision, materials, oils, lubricants, tools, equipment, transportation, and management necessary for the operation, predictive maintenance, preventive maintenance (PM), corrective maintenance, and repair of heating, ventilating, air conditioning, and refrigeration (HVAC/R) equipment, identified in Attachments L-12, J-24, and J-25. The work shall include PM and repair of equipment and system components consisting of, but not limited to, gas, oil, and electric heating boilers, centrifugal, reciprocating, screw, liquid and air-cooled air conditioning systems, direct expansion package air conditioning units, self-contained computer cooling units, electric heat pumps, through-the-wall heating and air conditioning units, cooling towers, air handling units, unit heaters, refrigerant compressors, humidifiers, ventilation blowers/fans, service valves, dampers, condensers, coils, chillers, pumps, purge units, electrical and mechanical controls, duct work, piping, motors, evaporators, air filters and dryers, thermostats, humidifiers, fan coil units, water coolers, ice machines, refrigerators, reach-in freezers, and performance of seasonal equipment start-ups and shut-downs; annual heating boiler overhaul, associated inspection and certification assistance; maintaining records and preparing reports to ensure safe and efficient equipment operation and to maximize the life of each piece of equipment for optimum operational efficiency. All additional costs associated with performance of refrigerant leak detection, reclamation, cleaning, reporting, and recycling shall be provided at no additional cost to the Government. See Attachment L-27 for refrigerant reclamation information. PM and repair work shall comply with the applicable directives, manuals, and instructions listed in Attachment J-26.

12.2 LUMP SUM WORK

The following contract requirements shall be performed per the Performance Requirements Summary (PRS), Section E.10, at the frequencies or parameters specified within the contract requirement:

- A. Contract Element (CLIN - 00X1.1201) Hot Water Boiler PM The Contractor shall perform PM on the boilers listed in Attachment J-19 and in accordance with Paragraph 12.5.U, Maintenance Requirements and Procedures. Annual certifications are required and shall be obtained by the Contractor. The annual certification consists of (1) Type A - Internal and External, (2) Type B - Internal and External with hydrostatic test, and Type C - External under steam. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

- B. Contract Element (CLIN - 00X1.1202) Boiler Hot Water Pump PM The Contractor shall perform PM on the boiler hot water pumps included in Attachment J-24 and in accordance with Paragraph 12.5, Detailed Specifications. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- C. Contract Element (CLIN - 00X1.1203) Boiler Feed water Pump PM The Contractor shall perform PM on the boiler feed water pumps included in Attachment J-24 and in accordance with Paragraph 12.5, Detailed Specifications. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- D. Contract Element (CLIN - 00X1.1204) Chilled Water Pump PM The Contractor shall perform PM on the chilled water pumps included in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- E. Contract Element (CLIN - 00X1.1205) Chiller PM The Contractor shall perform PM on the reciprocating A/C plants included in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- F. Contract Element (CLIN - 00X1.1206) Air Handler Unit PM The Contractor shall perform PM on the air handler units included in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- G. Contract Element (CLIN - 00X1.1207) Exhaust Fan PM The Contractor shall perform PM on the exhaust fans included in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- H. Contract Element (CLLN - 00X1.1208) Cooling Tower PM The Contractor shall perform PM on the cooling towers listed in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- I. Contract Element (CLIN - 00X1.1209) Cooling Tower Circulating Pump PM The Contractor shall perform PM on the cooling tower circulating pumps included in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- J. Contract Element (CLIN - 00X1.1210) Cooling Tower Water Treatment The Contractor shall perform water treatment for the water towers located south of Fowler Road and designated systems north of Fowler Road. Water treatment equipment is shown in Attachment J-23 and per Paragraph 12.5.Q. All treatment activities shall be accomplished in compliance with the Contractor's PM plan.

- K. Contract Element (CLIN - 00X1.1211) Humidifier and Dehumidifier PM The Contractor shall perform PM on the humidifiers and dehumidifiers listed in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- L. Contract Element (CLIN - 00X1.1212) Trailer Mounted Mobile Chiller (Emergency Chiller) PM The Contractor shall perform a monthly PM on the trailer mounted mobile chillers included in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- M. Contract Element (CLIN - 00X1.1213) Water Treatment for Chilled Water Systems The Contractor shall perform water treatment for the chilled water systems. All water treatment activities shall be accomplished in compliance with the Contractor's PM plan.
- N. Contract Element (CLIN - 00X 1.1214) Water Treatment for Hot Water and Steam Boilers The Contractor shall perform water treatment for the hot water and steam boilers. Water treatment equipment is listed in Attachment J-23. All activities shall be accomplished in compliance with the Contractor's PM plan.
- O. Contract Element (CLIN – 00X1.1215) Refrigerant Reclamation The Contractor shall reclaim all CFC and HCFC refrigerants for reuse.
- P. Contract Element (CLIN – 00X1.1216) Supply and Return Air Fan PM The Contractor shall perform PM for all supply and return air fans included in Attachment J-24.
- Q. Contract Element (CLIN – 00X1.1217) Heating Vent Unit PM The Contractor shall perform PM for all heating vent units included in Attachment J-24.
- R. Contract Element (CLIN – 00X1.1218) Heating, Ventilating, Air Conditioning and Refrigeration (HVAC/R) Operations and Maintenance The Contractor shall operate, maintain, and repair all MSFC HVAC/R systems continuously, 365 days per year, 24 hours per day, 7 days a week maintaining special environments that are currently in force in accordance with Attachment J-21. The special environment areas may be subject to change as Center objectives and programs are defined. The Contractor will not be responsible for operating and maintaining a new special environment with criteria that exceeds the HVAC/R design for that area without compensation from the Government. Areas that are required to meet comfort zone conditions are listed in Attachment L-28. The Contractor shall minimize personnel discomfort in administrative areas when HVAC/R conditions are impacted by events outside of the Contractor's control. Operations shall include, but not be limited to, performance of seasonal equipment start-ups and shutdowns, calibrations, resetting and restarting tripped equipment, regulator or thermostat adjustments,

filter replacements other than HEPA filters, and isolating and returning equipment to service as a result of planned or unplanned outages. The work shall also include repair of HVAC/R related components (i.e., air compressors, air dryers, fans, chillers, cooling towers, DXAC units, humidifiers, pumps) and associated piping isolated to the first connection point upstream and downstream of each component. All piping, fittings, valves, insulation/ lagging, aluminum jacketing, expansion loops, traps, strainers, pipe hangers, anchors, structural supports, and touch-up painting are included. Work shall be done in accordance with Paragraph 12.5.U, Maintenance Requirements and Procedures. Maintenance timeliness shall be the same as for trouble calls. Maintenance workload information is listed in Attachment L-30. The Contractor's repair liability for servicing equipment and system components is limited to \$500 of Contractor-provided material per system, per occurrence. The Contractor shall not classify response to alarms associated with HVAC/R as trouble calls, exclusive of Utility Control System monitoring hardware. The Contractor shall respond to emergency situations with correct repair so scheduled test programs will not be delayed. Work shall conform to Federal and state Codes, EPA standards, OSHA regulations, and ASHRAE requirements. The HVAC systems and equipment the Contractor shall operate includes, but is not limited to, those identified in Attachments L-12, J-24, and J-25. Failure of the Government to supply water, fuel, or electricity for plant operations will relieve the Contractor of responsibility of operations during the time period the Government is remiss in these supply functions. If interrupted by the Government, the Contractor shall return the HVAC/R system on-line within two (2) hours of re-establishment of Government service. The Government will provide the Contractor all operational procedures that are presently available for MSFC HVAC/R systems. It is understood that all critical and comfort environments shall be maintained within assigned set points and related dead bands. Furthermore, no routine visits by operators will be necessary if the zone environmental parameters are within assigned guidelines. Comfort zones shall be maintained in accordance with Paragraph 12.5.F.

- S. Contract Element (CLIN – 00X1.1219) DXAC/Heat Pump Unit PM The Contractor shall perform PM on the DXAC/heat pump units included in Attachments L-12 and J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- T. Contract Element (CLIN – 00X1.1220) Computer Room Unit PM The Contractor shall perform PM on the computer room units included in Attachments L-12 and J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- U. Contract Element (CLIN – 00X1.1221) Backflow Preventer PM The Contractor shall perform PM on the back-flow preventers included in Attachments L-12 and J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

- V. Contract Element (CLIN – 00X1.1222) Air Filter PM The Contractor shall perform PM on the filters included in Attachments L-12 and J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- W. Contract Element (CLIN – 00X1.1223) Hot Water Pump PM The Contractor shall perform PM on the hot water pumps included in Attachments L-12 and J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

12.3 DOCUMENTATION AND REPORTING REQUIREMENTS

Contract Element (CLIN – 00X1.1224) Refrigerant Recovery Management Plan The Contractor shall have a Refrigerant Management Plan in which all CFC and HCFC refrigerants are tracked, inventoried, preserved, and recovered for reuse. A status shall be maintained and continuously updated on the CMMS. The plan shall also include servicing records for all equipment containing 50 pounds or more of CFC refrigerant which detail the amount of refrigerant added to equipment as well as the service date. The Contractor shall establish the baseline full charge amount for this equipment and calculate an annualized leak rate. Leaks shall be repaired if the annualized leak rate exceeds thirty-five percent of the baseline full charge amount.

12.4 IDIQ WORK

IDIQ work will be ordered in accordance with Paragraph 1.6 IDIQ Work, and may be ordered for any facility involving HVAC/R and Boiler Maintenance and Repair. Maintenance and repair IDIQ work shall be completed within the number of days specified on the FWR or DO.

- A. Repair Leaking Joint The Contractor shall accomplish the repairs of leaking solder, welded joints, mechanical joints, and condenser tube roll joints. All gaskets and fasteners removed shall be replaced with new.
- B. Valve Seats, Bonnets, Packing Areas, and Diaphragms The Contractor shall repair leaking valve seats, bonnets, and valve packing areas in place, and change leaking regulating valve diaphragms.
- C. Gate Valve(s) The Contractor shall remove the existing and install new gate valve(s).
- D. Copper Tubing The Contractor shall remove the existing and install new copper tubing and associated fittings.

- E. Steel Pipe The Contractor shall remove the existing and install new seamless steel pipe and associated fittings.
- F. Pipe Insulation The Contractor shall remove the existing and install new pipe insulation.
- G. Pressure Gauge(s) The Contractor shall remove the existing and install new pressure gauge(s).

12.5

DETAILED SPECIFICATIONS

The Contractor shall accomplish the following detailed specifications and requirements in accomplishing work required by this work paragraph:

- A. Safety The Contractor shall abide by all local, state and Federal regulations in the respect to personnel safety and in accordance with the Contractors approved Safety and Health plan.
- B. Interferences The Contractor shall remove and reinstall interferences necessary to accomplish work required by this work paragraph.
- C. Forms The Contractor shall obtain, fill-out, and adhere to all NASA MSFC required permit forms including , but not limited to, burn permit, confined space entry permit, dig permit, and all lock-out, tag-out procedures in accordance with the Contractors approved Safety and Health plan.
- D. Shut-down of Heating and Air Conditioning Equipment Prior approval shall be obtained from an authorized representative for unscheduled work requiring shutdown of any equipment for over 60 minutes during core work hours, except for an emergency. Whenever possible, maintenance requiring shutdown of equipment for more than 60 minutes shall be performed when winter heating or summer air conditioning is not required.
- E. Operation of Certified Boilers The Contractor shall not operate any power or heating boiler that does not have a valid annual State Inspection Certificate for which the Contractor shall be responsible. The COTR shall be notified if unsafe conditions are found following repair of a pressure part, after any major modification to boilers, control equipment, or associated components. The affected equipment shall not be placed back in operation until written authorization is received from the Government.
- F. Temperature Settings for HVAC/R Equipment and Systems The Contractor shall maintain temperature settings for HVAC/R equipment and systems during performance of work as specified herein. The majority of buildings shall be maintained at a comfortable heating temperature range of between 68 degrees F

to 74 degrees F and a comfort cooling range of between 68 degrees F and 74 degrees F as desired by the occupants and their requirements. However, the heating and cooling ranges are subject to change based on MSFC energy conservation goals. Attachment J-21 lists special temperature control requirements currently in force. Attachment L-28 provides comfort zone information.

- G. Environmental Management Support The Contractor shall handle all hazardous waste and environmental work associated with, or arising from, this work paragraph, in accordance with the requirements of Paragraph 6.0, Environmental Management Support.
- H. Pressure Testing The Contractor shall accomplish pressure testing for leaks when repairs or alterations are made involving the integrity of refrigerant, steam, hot water, feed water, chilled water, condenser water, or make-up water systems while conducting maintenance or repair. If the repair is made to a buried section of the system, the pressure test shall be accomplished prior to covering the repair area.
- I. Structural Support Systems The Contractor shall accomplish the repair or replacement of pipe hangers, supports, expansion loops, guy wires, anchor rods, screw anchors, turnbuckles, motor mounts, fasteners, and anchors while conducting maintenance and repair.
- J. Valves The Contractor shall repair or replace deteriorated, damaged, and leaky valves, stems, disks, seals, packing, bonnets, and gaskets. If a valve requires disassembly for repair, the Contractor shall, while the valve is disassembled, clean the bonnet, lubricate the stem, and inspect the valve for signs of deteriorated or damaged packing and broken, bent, corroded, or missing parts. After the valve is restored, the Contractor shall apply system pressure to ensure all joints are sealed, and check for seat, body, and packing leaks, and check for proper operation, correcting any defects found. The Contractor shall apply anti-seize compound conforming to gasket surfaces and moving parts. All valves under two (2) inches shall be replaced with new valves if found defective by the Contractor, not repaired.
- K. Expansion Joints The Contractor shall accomplish the replacement of deteriorated, damaged, and leaky expansion joints, associated fasteners, and insulation. The new expansion joints shall be installed with new fasteners and insulation.
- L. Traps and Y-Type Strainers The Contractor shall repair or replace all defective parts of traps and Y-type strainers such as baskets, plugs, gaskets, bellows, floats, valves, valve seats, hooks, buckets, linkages, and strainer orifices. If repair requires disassembly, the Contractor shall clean, inspect, and test the trap

or strainer in the same manner as valves. The Contractor shall test traps and strainers to determine correct operation, without breaking insulation.

- M. Fasteners: Steam, Condensate, and Hot Water When required by deterioration, damaged threads, missing fasteners or new installations, the Contractor shall remove the existing and or install new fasteners that conform to original requirements or MSFC Technical Specification for Construction and Repair (TRSC-4).
- N. Fasteners: Potable Water, Chilled Water, or Condenser Water When required by deterioration, damaged threads, missing fasteners, or new installations, the Contractor shall remove the existing and or install new fasteners that conform to original requirements or TRSC-4.
- O. Gaskets When required, the Contractor shall install new gaskets conforming to the manufacturer's specifications and or the latest code and industry standards for "boiler water sides" and "boiler fire sides". Apply high temperature anti-seize compound to boiler gasket mating surfaces. The Contractor shall install new gaskets conforming to original requirements or TRSC-4.
- P. Gauge and Thermometer Calibration The Contractor shall insure all system gauges and thermometers are in good working order. The Government's Calibration Laboratory will be available should the Contractor elect to calibrate this equipment. Each gauge and thermometer shall be functional to allow safe operation of the system.
- Q. Water Treatment The Contractor shall provide chemical water treatment to control corrosion, the growth of algae, viruses, and all other micro-biological growth to: steam and hot water boilers and their associated systems, chilled water systems, cooling towers and condenser water systems. Water treatment disposal shall be in compliance with the MSFC NPDES permit. Water treatment chemicals containing chromium or tributyltin shall not be used.
- R. Refrigerants The Contractor shall accomplish the use, handling, holding, cleaning, disposal, modifying, repairing, and testing of all refrigerants and refrigerant systems in accordance with all applicable Federal, state, local, EPA and ASHRAE regulations. Refrigerant usage by type over the last five (5) years is shown in Attachment L-27.
- S. Pipe Insulation The Contractor shall repair or replace damaged pipe insulation as found or caused in accomplishing PM or repair. When repairing or replacing insulation, the Contractor shall inform their personnel of the possible hazards of asbestos and shall comply with the requirements in the Contractor's Safety and Health Plan and MSFC instructions. All replacement pipe insulation shall match existing insulation or be installed per TRSC-4.

- T. Painting The Contractor shall prepare, prime, and paint all new and disturbed surfaces to match the surrounding surfaces, as a result of the requirements of this work paragraph in accordance with Paragraph 10.5.D, Painting, and Paragraph 6.0, Environmental Management Support, for disposal.
- U. Maintenance Requirements and Procedures The Contractor shall maintain all equipment in optimum operating condition and control. All HVAC/R systems shall be operational, functional, and ready to respond to demand according to its design purpose and intent. Note - scheduled and planned outages for Buildings 4663 and 4207 will be very difficult to obtain and most likely will only be available during a holiday period such as Christmas. For any unscheduled or unplanned outages, the HVAC/R systems listed in Attachment J-10 shall be non-functional no greater than those occurrences and times specified in Attachment J-10, herein referred to as the "outage limit," except for scheduled or planned outages. For work that exceeds the TC limit, the time expended by the Contractor prior to the Contractor notifying the COTR of such condition shall be applied towards the outage limit. All other time will not be counted towards the outage limit for work exceeding the TC limit (reference note G. on the Systems Availability Requirements Table in Attachment J-10). Planned outages for maintenance and repair shall follow standard labor hours and practices per the Means® Facilities Maintenance and Repair Cost Data Handbook. Anytime exceeding published labor hours may count towards the outage limit.

Chillers shall be operated based on seasonal demand to provide for maximum chiller life and minimal operational costs. The maintenance procedures shall be prepared by the Contractor per the following order as applicable: (1) manufacturer's instructions; (2) industry standards and codes; (3) Federal, state, and local regulations; and (4) procedures outlined in NASA publications. The Contractor shall keep all records and procedures orderly, readily accessible, and simply referenced in such a manner to be quickly accessed by all authorized Government authorities at anytime. The Contractor shall provide the maintenance procedures in accordance with DRD 987LS-011.

ATTACHMENT J-1

13.0 ELECTRICAL DISTRIBUTION AND EMERGENCY GENERATING SYSTEMS

13.1 GENERAL REQUIREMENTS

- A. General The Contractor shall provide all labor, management, supervision, tools, materials, equipment, incidental engineering, and transportation to operate, maintain and repair all low voltage electrical distribution systems, street and perimeter lighting systems, electrical support of the high voltage systems and emergency generation systems. The Contractor shall be directly responsible for: (1) emergency generators; (2) transformers; (3) uninterrupted power supplies (UPS); (4) switchgear; and (5) exterior and interior lighting systems, including but not limited to, office, street, flood, perimeter, emergency egress and security lighting; and (6) all facility internal and external low and medium voltage power distribution systems. Emergency egress lighting within facilities consists of approximately 1,230 lights. High voltage systems (above 600 Volts) will be maintained by the Army.
- B. Emergency Requirements: Loss of Primary Power Following a complete loss of primary power, the Contractor shall confirm that existing emergency generating equipment is on-line. The Contractor shall respond to the outage as an emergency trouble call (TC). After the Government has restored primary power the Contractor shall confirm that all emergency generating equipment has returned to normal which is still performed as part of the same TC.

13.2 LUMP SUM WORK

The following Contract Requirements shall be performed per the Performance Requirements Summary (PRS) Section E.10, at the frequencies or performance criteria specified within the contract requirement:

- A. Contract Element (Include in CLIN 00X1.0401) Trouble Calls (TC) The Contractor shall respond to and repair all inoperative electrical systems called in as a trouble call.
- B. Contract Element (CLIN - 00X1.1301) Fixed and Mobile Emergency Generator System PM The Contractor shall perform PM on the emergency generator systems as shown in Attachments L-29 and J-24. The Contractor shall perform a visual inspection on all emergency generating equipment fuel oil tanks for material condition and adequate fluid levels. The Contractor shall ensure there

is suitable fuel to operate all emergency generating equipment. The Contractor shall maintain and repair all monitoring systems on fuel tanks. The Contractor shall also inspect all monitors to determine if there is any inner tank leakage. If leakage is discovered the Contractor shall report their findings to NASA/Environmental Engineering Department immediately. The Contractor shall maintain all fuel oil handling equipment including storage tanks, monitoring systems, pumps, piping, and heaters. The Contractor shall check proper operation of the generators by starting and running them until normal engine operating temperature is achieved. The frequency shall be measured for proper output (Refer to Paragraph 13.5.D, Performance) for performance criteria. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

- C. Contract Element (CLIN - 00X1.1302) Electrical Switchgear PM The Contractor shall perform PM on all electrical switchgear. (Refer to Paragraph 13.5.D), Performance, for performance criteria. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- D. Contract Element (CLIN - 00X1.1303) Street and Perimeter Lighting PM The Contractor shall inspect on a regular basis all street and perimeter lighting systems. Inspections shall take place after dark to locate inoperative fixtures. The Contractor shall relamp all burned out street and perimeter light fixtures and repair or replace all broken fixtures. Any inoperative fixtures reported to the Contractor by a TC shall be placed back in service within five working days from initial notification. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- E. Contract Element (CLIN - 00X1.1304) Mobile and Fixed Emergency Generator System Operation The Contractor shall transport; connect and disconnect; and operate portable generators during planned and unplanned power outages at various structures and remote locations when no normal source of power is available. The Contractor shall maintain the portable emergency generators as listed in Attachment L-29 in a ready state of use. The generators have historically been used under load condition five (5) times during the calendar year 2001. Government furnished portable generators shall be utilized. The Contractor shall provide emergency generators required by the Government in addition to the Government furnished generators under the indefinite quantity paragraph of this contract. (Refer to Paragraph 13.5.D.) Performance, for performance criteria.
- F. Contract Element (CLIN - 00X1.1305) Uninterrupted Power Supply, Rectifiers, and Battery Bank PM The Contractor shall perform PM on the uninterrupted power supply, rectifiers, and battery bank systems listed in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

- G. Contract Element (CLIN - 00X1.1306) Special Electrical Power Systems Operation The Contractor shall operate, repair, maintain, inspect, and modify special electrical and electronic controlled power distribution systems in Building 4487. Special power systems are capable of supplying two to four hundred Volts of DC power from six patch panels. Two hundred lead acid batteries and forty battery chargers are included in the special power systems.
- H. Contract Element (CLIN - 00X1.1307) Interior and Exterior Low and High Voltage Distribution System PM The Contractor shall accomplish all electrical system PM in compliance with their PM plan. This shall include PT&I activities such as thermography to identify weak or failing system components.
- I. Contract Element (CLIN 00X1.1308) 4160-Volt Power Support The Contractor shall perform operational support activities to service, maintain, repair and test 4160-Volt systems that are integral to the NASA MSFC systems. Additionally, the Contractor shall assist the RASA High Voltage personnel involved with 4160-Volt Power equipment anomalies and scheduled power outages that affect NASA facilities. Anomalies may include, but are not limited to, potential phase loss, phase sequence, and incoming low or high voltage fluctuations directly related to the incoming 4160-Volt power source. Typical systems throughout MSFC that the Contractor shall be responsible for include, but are not limited to, transfer switches, switchgear, and starters for chilled water system compressors, MSFC-owned 4160-Volt generators, transformers, and switchgear. The Contractor shall provide continuous maintenance support for all 4160-Volt outages that affect MSFC facilities. The Contractor shall ensure that affected parties are informed that power restoration is completed properly and that system configuration and integrity is not compromised at the conclusion of the work. The Contractor is liable for support activities only on the RASA-owned 4160-Volt systems, and therefore RASA is responsible for maintenance and repair/replacement services. The Contractor shall provide PM service and repair activities on MSFC-owned 4160-Volt switchgear, transformers, generators, transfer switches, and starters for chilled water system compressors. The Contractor's repair liability for servicing equipment and system components is limited to \$500 of Contractor-provided material per system, per occurrence. The repairs shall be accomplished on TC's or IDIQ's as required. The PM service shall be added to the CMMS as part of the PM database.
- J. Contract Element (CLIN - 00X1.1309) Emergency Light PM The Contractor shall inspect on a regular basis all emergency lighting systems. Emergency lights, as identified in NFPA Life Safety Code 101, shall be maintained in accordance with the Life Safety Code. Emergency lights that do not meet the definition of the Life Safety Code shall be maintained in accordance with Paragraph 4.0, Trouble Calls. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

- K. Contract Element (CLIN - 00X1.1310) Variable Speed Drives PM The Contractor shall perform PM on all variable speed drives listed in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- L. Contract Element (CLIN - 00X1.1311) Static Ground and Lightning Protection PM The Contractor shall perform PM on all static ground and lightning protection systems listed in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.
- M. Contract Element (CLIN - 00X1.1312) Storage Tank Monitor PM The Contractor shall perform PM on all storage tank monitors listed in Attachment J-24. All PM activities shall be accomplished in compliance with the Contractor's PM plan.

13.3 DOCUMENTATION AND REPORTING REQUIREMENTS

- A. Contract Element (Include in CLIN - 00X1.0306) Computerized Maintenance Management System (CMMS) Operations and Management The Contractor shall continuously update the CMMS to reflect any and all equipment failures and corrective actions taken. All data shall be accurate and current.
- B. Contract Element (CLIN - 00X1.1016) Maintenance Procedures The Contractor shall provide maintenance procedures in accordance with DRD 987LS-011. The Contractor shall update and revise all maintenance procedures on a continuing basis as required by physical changes at no additional cost to the Government (See Paragraph 10.5.E, Maintenance Requirements and Procedures). Maintenance procedures shall be maintained in the TRL.

13.4 IDIQ WORK

Indefinite quantity work will be ordered in accordance with Paragraph 1.6, IDIQ and completed within the number of calendar or workdays specified in the FWR or DO.

Provide and Run Emergency Generators The Contractor shall provide, connect, run, and disconnect various portable emergency generators. The Contractor shall provide all maintenance, repair, etc., required for the operation of the generators. The Contractor shall restore normal power upon disconnecting the portable generators. The Contractor shall provide the emergency generator within 24 hours of notification by the COTR.

13.5 DETAILED SPECIFICATIONS

- A. Emergency Generators The Contractor shall make all necessary repairs to emergency generating equipment and ancillary component equipment, including diesel engines on a priority basis. The Contractor shall work continuously to repair the disabled system and shall provide the COTR with daily reports of progress until all repairs and tests are complete. The Contractor shall turn in used oil in containers to the hazardous waste storage facility.
- B. Batteries and Battery Charters The Contractor shall maintain, repair, or provide labor to order and replace batteries and battery chargers of 12 and 24 Volts on emergency generators, and up to 550 Volts for UPS systems. All batteries in service shall be maintained in a 100 percent working order.
- C. Storage Batteries The Contractor shall maintain, repair, or replace batteries in storage per the manufacturer's recommendations.
- D. Performance All equipment shall be operational, functional, and ready to respond to demand according to its design purpose and intent except for scheduled or planned outages. Note: Scheduled and planned outages for Buildings 4663 and 4207 will be very difficult to obtain and most likely will only be available during a holiday period such as Christmas. For unscheduled and unplanned outages, the electrical systems listed in Attachment J-10 shall be non-functional no greater than those occurrences and times specified in Attachment J-10, herein referred to as the "outage limit," except for scheduled or planned outages. For work that exceeds the TC limit, the time expended by the Contractor prior to the Contractor notifying the COTR of such condition shall be applied towards the outage limit. All other time will not be counted towards the outage limit for work exceeding the TC limit (reference note G on the Systems Availability Requirements Table in Attachment J-10). Planned outages for maintenance and repair shall follow standard labor hours and practices per the Means® Facilities Maintenance and Repair Cost Data Handbook. Anytime exceeding published labor hours may count towards the outage limit.
- E. All replacement electronic equipment (electronic ballasts, variable frequency drives, etc.) shall have a total harmonic distortion (THD) of ten percent or less.

ATTACHMENT J-1

14.0 EMERGENCY MANAGEMENT SUPPORT

14.1 GENERAL REQUIREMENTS

The Contractor shall provide personnel to support the MSFC emergency program and operation of the Center's Emergency Operations Center (EOC). Because of the unique nature of the program the Contractor personnel will have to work closely with the MSFC Emergency Management Director and the Emergency Preparedness Officer (EPO). Historical staffing for this support has included one individual full time to operate the EOC with several other trained individuals on the contract to fill in during absences.

14.2 LUMP SUM WORK

The following Contract Requirements shall be performed per the Performance Requirements Summary (PRS) Section E.10, at the frequencies or performance criteria specified within the contract requirement:

- A. Contract Element (CLIN - 00X1.1401) Emergency Operations Center (EOC) Support The Contractor shall provide support services in the management of the EOC. Responsibilities shall include coordination and integration of emergency communications, weekly radio checks with emergency responders and storm spotters, severe weather monitoring, MPG 1040.3 update, and daily operation of the EOC. The Contractor shall assure operability of the equipment associated with the Emergency Operations software which includes arranging for system maintenance at the Government's expense, installing enhanced software provided by the Government, system security, and the development of procedures required to support the system. The Contractor shall assure the operability of all emergency equipment in the EOC as shown in Attachment L-28 weekly operational tests shall be performed on all EOC emergency equipment with a report of test results provided to the NASA EPO within 1 day of test completion. As maintenance is required, the Contractor shall notify the EPO and then call in a work order to initiate repairs to the system by others.
- B. Contract Element (CLIN - 00X1.1402) Emergency Warning System EWS Tests The EWS is the primary emergency warning system for MSFC and, therefore, critical that it is operational at all times. The Contractor shall help assure the effective operability of the EWS by notifying the EPO when trouble calls are brought to their attention and to call in work orders to initiate repairs to systems by others. Any period of scheduled down time or system activation testing

requires approval of the EMD or EPO. The EWS is maintained and controlled by others.

- C. Contract Element (CLIN - 00X1.1403) Emergency/Evacuation Plans
Emergency/Evacuation Plans are posted in all occupied buildings at MSFC and MSFC off-site locations to guide and instruct employees where they are to go during severe weather or fire evacuation. The Contractor shall inspect each building on MSFC and MSFC off-site locations at least annually to evaluate adequate protective areas, sufficient number of plans in a building, and all protective areas are designated as such. The Contractor shall call in a work order for corrections by others and provide a weekly report to the EPO on reposted plans.
- D. Contract Element (CLIN - 00X1.1404) Drills and Field Exercises The Contractor shall develop emergency field tabletop exercises (two per year) and deliver to the Government for evaluation and execution. These may include natural disasters, environmental incidents, fire, explosions, and weapons of mass destruction incidents, bomb threats, or others. The Contractor shall assist the EPO in coordinating and participating in a yearly state-wide severe weather drill. The Contractor shall be trained in Hazardous Waste Operations and Emergency Response.
- E. Contract Element (CLIN - 00X1.1405) Damage and Utility Control DUC) Team
The Contractor shall respond to all emergencies and disasters at MSFC as part of the emergency response efforts for all facilities and equipment for which the Contractor has maintenance and/or repair responsibilities as directed by the Emergency Management Director (EMD). The Contractor shall provide a core complement of personnel that are trained in emergency response as damage and utility control specialists. This team will be referred to as the Damage and Utility Control Team (DUC Team) and will be responsible for isolating and making safe utilities such as electrical power, steam, natural gas, and water during emergency/disaster situations as well as helping to mitigate any additional damages. The team shall receive its directions from either the Incident Commander, EMD or Deputy EMD, or their designee during emergency situations. The Contractor shall determine the number of personnel that are trained as DUC Team members.

The Contractor shall respond to all major emergency/disaster events on a 24-hour, seven (7) day per week basis. The Contractor shall handle each event as an emergency TC with the corresponding limitations. Remaining work shall be accomplished at the Government's discretion per Paragraph 1.6, IDIQ Work. Historically, less than (5) five emergency/disaster situations occur per year.

DUC Team members shall be trained in Hazardous Waste Operations and Emergency Response (HAZWOPER), Incident Command, how to safely approach an emergency situation/disaster scene, and shall be totally familiar

with utility cutoff procedures and locations for each facility/structure at MSFC.
See Paragraph 6.0, Environmental Management Support for training.

PART IV

SECTION K

REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR OFFERORS

K.1 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (52.203-2) (APR 1985)

- (a) The offeror certifies that—
 - (1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to
 - (i) Those prices
 - (ii) The intention to submit an offer, or
 - (iii) The methods or factors used to calculate the prices offered;
 - (2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and
 - (3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.
- (b) Each signature on the offer is considered to be a certification by the signatory that the signatory—
 - (1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or
 - (2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above

[Insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization];

- (ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and
- (iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.
- (c) If the offeror deletes or modifies subparagraph (a)(2) above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of Provision)

K.2 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (52.203-11) (APR 1991)

- (a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph B of this certification.
- (b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989 --
 - (1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;
 - (2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of

Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

- (3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.
- (c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by Section 1352, Title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of Provision)

K.3 TAXPAYER IDENTIFICATION (52.204-3) (OCT 1998)

- (a) Definitions.

"Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

- (b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

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(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

- ☐ TIN: _____.
- ☐ TIN has been applied for.
- ☐ TIN is not required because:
- ☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;
- ☐ Offeror is an agency or instrumentality of a foreign government;
- ☐ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

- ☐ Sole proprietorship;
- ☐ Partnership;
- ☐ Corporate entity (not tax-exempt);
- ☐ Corporate entity (tax-exempt);
- ☐ Government entity (Federal, State, or local);
- ☐ Foreign government;
- ☐ International organization per 26 CFR 1.6049-4;
- ☐ Other _____.

(f) Common parent.

- ☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.
- ☐ Name and TIN of common parent:

Name _____

TIN _____

(End of Provision)

K.4

WOMEN-OWNED BUSINESS (52.204-5) (MAY 1999)

(a) Definition. "Women-owned business concern," as used in this provision, means a concern that is at least 51 percent owned by one or

more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

- (b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ☐ is a women-owned business concern.

(End of Provision)

K.5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (52.209-5) (DEC 2001)

- (a)(1) The Offeror certifies, to the best of its knowledge and belief, that-
- (i) The Offeror and/or any of its Principals-
 - (A) Are ☐ are not ☐ presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
 - (B) Have ☐ have not ☐, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
 - (C) Are ☐ are not ☐ presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.
 - (ii) The Offeror has ☐ has not ☐, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.
- (2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or

supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

- (b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.
- (d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of Provision)

K.6 SMALL BUSINESS PROGRAM REPRESENTATIONS (52.219-1) (APR 2002) ALTERNATE I (APR 2002)

- (a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 561210.
- (2) The small business size standard is \$23M annually.

- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations .

- (1) The offeror represents as part of its offer that it ☐ is, ☐ is not a small business concern.
- (2) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, for general statistical purposes, that it ☐ is, ☐ is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.
- (3) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a women-owned small business concern.
- (4) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a veteran-owned small business concern.
- (5) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a service-disabled veteran-owned small business concern.
- (6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision .] The offeror represents, as part of its offer, that- (i) It ☐ is, ☐ is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and (ii) It ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. [The offeror shall enter the name or names of the

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HUBZone small business concern or concerns that are participating in the joint venture:_____.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7)[Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.] The offeror shall check the category in which its ownership falls:

- ☐ Black American.
- ☐ Hispanic American.
- ☐ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).
- ☐ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).
- ☐ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).
- ☐ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision-

"Service-disabled veteran-owned small business concern"-

(1) Means a small business concern-

- (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
- (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

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"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (a) of this provision.

"Veteran-owned small business concern" means a small business concern- (1) Not less than 51% of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and (2) the management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern-

- (1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall-

- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of Provision)

K.7 SMALL DISADVANTAGED BUSINESS STATUS (52.219-22) (OCT 1999) -ALTERNATE I (OCT 1998)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either-

☐ (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification;

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net); or

☐ (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2) ☐ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.] (c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall-

- (1) Be punished by imposition of a fine, imprisonment, or both;
- (2) Be subject to administrative remedies, including suspension and debarment; and
- (3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

(3) Address. The offeror represents that its address is ☐ is not ☐ in a region for which a small disadvantaged business procurement mechanism is authorized and its address has not changed since its certification as a small disadvantaged business concern or submission of its application for certification. The list of authorized small disadvantaged business procurement mechanisms and regions is posted at <http://www.arnet.gov/References/sdbadjustments.htm>. The offeror shall use the list in effect on the date of this solicitation. "Address," as used in this provision, means the address of the offeror as listed on the Small Business Administration's register of small disadvantaged business concerns or the address on the completed application that the concern has submitted to the Small Business Administration or a Private Certifier in accordance with 13 CFR part 124, subpart B. For joint ventures, "address" refers to the address of the small disadvantaged business concern that is participating in the joint venture.

(End of Provision)

K.9 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FAR 52.222-22) (FEB 1999)

- (a) It ☐ has, ☐ has not ☐ participated in a previous contract or subcontract subject the Equal Opportunity clause of this solicitation;
- (b) It ☐ has, ☐ has not filed all required compliance reports; and
- (c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of Provision)

K.10 AFFIRMATIVE ACTION COMPLIANCE (FAR 52.222-25) (APR 1984)

The Offeror represents that--

- (a) It ☐ has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or
- (b) It ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of Provision)

K.11 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (FAR 52.222.38) (DEC 2001)

By submission of its offer, the Offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of Provision)

K.12 RECOVERED MATERIAL CERTIFICATION (FAR 52.223-4) (OCT 1997)

As required by the resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962I(3)(A)(i)), the Offeror certifies, by signing this offer, that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by the applicable contract specifications.

(End of Provision)

K.13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (FAR 52.223-13) (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the Offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the Offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: [Check each block that is applicable.]

☐ (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

☐ (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

☐ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the

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alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

☐ (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

☐ (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(End of Provision)

K.14 BUY AMERICAN ACT CERTIFICATE (52.225-2) (MAY 2002)

(a) The Offeror certifies that each end product, except those listed in paragraph (b) of this provision, is a domestic end product as defined in the clause of this solicitation entitled "Buy American Act--Supplies" and that the Offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The Offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

(b) Foreign End Products:

Line Item No Country of Origin

[List as Necessary]

(c) The Government will evaluate offers in accordance with the policies and procedures of Part 25 of the Federal Acquisition Regulation.

(End of Provision)

K.15 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (52.226-2) (MAY 2001)

(a) Definitions. As used in this provision --

"Historically black college or university" means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institution" means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k, including a Hispanic-serving institution of higher education, as defined in Section 316(b)(1) of the Act (20 U.S.C. 1101a)).

(b) Representation. The offeror represents that it -

☐ is ☐ is not a historically black college or university;
☐ is ☐ is not a minority institution.

K.15 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (FAR 52.227-15) (MAY 1999)

(a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data--General clause at 52.227-14 that is to be included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

(b) As an aid in determining the Government's need to include Alternate II or Alternate III in the clause at 52.227-14, Rights in Data--General, the offeror shall complete paragraph (c) of this provision to either state that none of the data qualify as limited rights data or restricted computer software, or identify, to the extent feasible, which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of such data should a contract be awarded to the offeror.

(c) The Offeror has reviewed the requirements for the delivery of data or software and states [Offeror check appropriate block]--

☐ None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.

☐ Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

Note: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights in Data-- General."

(End of Provision)

**K.16 USE OF GOVERNMENT-OWNED PROPERTY (NFS 1852.245-79)
(JUL 1997)**

(a) The Offeror ☐ does, ☐ does not intend to use in performance of any contract awarded as a result of this solicitation existing Government-owned facilities (real property or plant equipment), special test equipment, or special tooling (including any property offered by this solicitation). The Offeror shall identify any offered property not intended to be used. If the Offeror does intend to use any of the above items, the Offeror must furnish the following information required by Federal Acquisition Regulation (FAR) 45.205(b), and NASA FAR Supplement (NFS) 1845.102-71:

(1) Identification and quantity of each item. Include the item's acquisition cost if it is not property offered by this solicitation.

(2) For property not offered by this solicitation, identification of the Government contract under which the property is accountable and written permission for its use from the cognizant Contracting Officer.

(3) Amount of rent, calculated in accordance with FAR 45.403 and the clause at FAR 52.245-9, Use and Charges, unless the property has been offered on a rent-free basis by this solicitation.

(4) The dates during which the property will be available for use, and if it is to be used in more than one contract, the amounts of respective uses in sufficient detail to support peroration of the rent. This information is not required for property offered by this solicitation.

(b) The Offeror ☐ does, ☐ does not request additional Government-provided property for use in performing any contract awarded as a result of this solicitation. If the Offeror requests additional Government-provided property, the Offeror must furnish --

SECTION K

(1) Identification of the property, quantity, and estimated acquisition cost of each item; and

(2) The Offeror's written statement of its inability to obtain facilities as prescribed by FAR 45.302-1(a)(4).

(c) If the Offeror intends to use any Government property (paragraph (a) or (b) of this provision), the offer must also furnish the following:

(1) The date of the last Government review of the Offeror's property control and accounting system, actions taken to correct any deficiencies found, and the name and telephone number of the cognizant property administrator.

(2) A statement that the Offeror has reviewed, understands, and can comply with all property management and accounting procedures in the solicitation, FAR Subpart 45.5, and NFS Subparts 1845.5 and 1845.71.

(3) A statement indicating whether or not the costs associated with paragraph (c)(2) of this provision, including plant clearance and/or plant re-conversion costs, are included in its cost proposal.

(End of Provision)

SECTION L ATTACHMENTS AND FORMS

Marshall Values	Attachment L-1
Key Personnel Position Description and Resume	Attachment L-2
Job Description/Qualification (JD/Q) Form (for all personnel other than key)	Attachment L-3
MSFC COSS - Lump Sum and Prepriced Work Basis of Estimate (BOE)- Contract Line Item Number	Attachment L-4
Examples for Lump Sum and Prepriced Work Basis of Estimate (BOE) Calculations	Attachment L-5
IDIQ Coefficients	Attachment L-6
Summary of Cost/Price	Attachment L-7
Synopsis of COSS Statement of Work (SOW)	Attachment L-8
Past Performance Form Letter Example	Attachment L-9
Past Performance Interview/Questionnaire Form	Attachment L-10
Indefinite Delivery Indefinite Quantity (IDIQ) Work	Attachment L-11
A. Sample Facilities Work Request (FWR)	
B. Historical Workload	
C. Budget History	
D. IDIQ Value	
Equipment Listing	Attachment L-12
Trouble Call/Trouble Call Service	Attachment L-13
A. Trouble Call/Trouble Call Service Validation	
B. TC/TCS Workload	
C. Work Order Format	
D. Urgent and Emergency Trouble Calls/ Trouble Call Services	
Training Information	Attachment L-14
Predictive Testing and Inspection (PT&I) Technologies	Attachment L-15

Indefinite Delivery Indefinite Quantity Proposal Schedule Information	Attachment L-16
Meters	Attachment L-17
Surfaced Areas	Attachment L-18
Facility Condition Assessment Format	Attachment L-19
Environmental History	Attachment L-20
Boiler Log	Attachment L-21
Fire Alarm System Operations Workload	Attachment L-22
Gas Alarm System Operations Workload	Attachment L-23
Facilities Listing	Attachment L-24
Roofs	Attachment L-25
Fueling Cost	Attachment L-26
Refrigerant Usage	Attachment L-27
HVAC Comfort Zones	Attachment L-28
Emergency Generators	Attachment L-29
HVAC/R Operations Workload	Attachment L-30
MSFC City Chart	Attachment L-31
MSFC Map	Attachment L-32
Support to Government Facilities, Engineering, and Construction	Attachment L-33
Cost/Price Evaluation	Attachment L-34

SECTION L

INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (52.252-1) (JUN 1988)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

The full text of a Provision may be accessed electronically at the following addresses:

FAR Clauses: <http://www.arnet.gov/far/>

NASA FAR Supplement Clauses:

<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

NOTICE: The following provisions are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) PROVISIONS

<u>PROVISION NO.</u>	<u>TITLE</u>
52.204-6	CONTRACTOR IDENTIFICATION NUMBER - DATA
52.211-14	UNIVERSAL NUMBERING SYSTEM (DUNS) (JUN 1999)
52.215-1	NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (Sep 1990) (Insert "DO Rated Order")
52.215-21	INSTRUCTIONS TO OFFERORS - COMPETITIVE ACQUISITIONS (MAY 2002)
52.219-24	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997) - ALTERNATIVE IV (OCT 1997) Fill in Paragraph (b) with "Offeror is required to comply with the instructions contained in Request for Proposal (RFP) 8-1-2-A2-D9566 for Center Operations Support Services (COSS) Section L, Volume II, Cost/Price Factor."
52.222-24	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM - TARGETS (OCT 2000)
52.222-46	PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE REVIEW (FEB 1999)
52.232-13	EVALUATION OF COMPENSATION FOR PROFESSIONAL EMPLOYEES (FEB 1993)
	NOTICE OF PROGRESS PAYMENTS (Apr 1984)

52.232-38	SUBMISSION OF ELECTRONIC FUNDS TRANSFER INFORMATION WITH OFFEROR (MAY 1999)
52.237-1	SITE VISIT (APR 1984)
52.237-10	IDENTIFICATION OF UNCOMPENSATED OVERTIME (OCT 1997)

B. NASA/FAR SUPPLEMENT (48 CFR CHAPTER 18) PROVISIONS

**PROVISION
NO.**

TITLE

1852.223-73 SAFETY AND HEALTH PLAN (Dec 1988)

(End of Provision)

L.2 SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (52.214-34) (APR 1991)

Offers submitted in response to this solicitation shall be in the English language. Offers received in other than English shall be rejected.

(End of Provision)

L.3 SUBMISSION OF OFFERS IN U. S. CURRENCY (52.214-35) (APR 1991)

Offers submitted in response to this solicitation shall be in terms of U. S. dollars. Offers received in other than U.S. dollars shall be rejected.

(End of Provision)

L.4 TYPE OF CONTRACT (52.216-1) (APR 1984)

The Government contemplates award of a hybrid FIRM FIXED PRICE (FFP) and INDEFINITE DELIVERY INDEFINITE QUANTITY (IDIQ) type contract resulting from this solicitation.

(End of Provision)

L.5 SERVICE OF PROTEST (52.233-2) (AUG 1996)

A. Protest, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) shall be served on the Contracting Officer (addressed as follows) by obtaining

written and dated acknowledgment of receipt from PS30/Contracting Officer, Room 200A, Building 4201, MSFC, AL 35812.

- B. The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of Provision)

L.6 PROTESTS TO NASA (1852.233-70) (MAR 1997)

Potential bidders or Offerors may submit a protest under 48 CFR part 22 (FAR Part 33) directly to the Contracting Officer. As an alternative to the Contracting Officer's consideration of a protest, a potential bidder or Offeror may submit the protest to the Deputy Associate Administrator for Procurement, who will serve as or designate the official responsible for conducting an independent review. Protests requesting an independent review shall be addressed to Deputy Associate Administrator for Procurement, NASA Code H, Washington, DC 20546-0001.

(End of Provision)

L.7 INDUSTRY BRIEFING AND SITE VISIT

- A. An Industry Briefing and Site Visit will be held on July 23, 2002. Due to security requirements at Redstone Arsenal and the Marshall Space Flight Center (MSFC), arrangements have been made for attendees to park off-site at the Space and Rocket Center located adjacent to I-565, Huntsville, Alabama. A NASA bus will be made available to transport attendees to MSFC. The bus will be available for boarding at 7:30 a.m. and will depart to the site of the Industry Briefing at 8:00 a.m. Failure to board the bus at the designated location will preclude participation in the on-site tour since no one will be permitted to join the tour once inside MSFC. The total duration of the Industry Briefing and Site Visit is 7:30 a.m. - 3:45 p.m. A detailed schedule will be provided on the day of the Briefing.

Offerors who plan to have attendees at this briefing shall furnish in writing, by e-mail, the information that has been requested by Special Notice to Industry Briefing and Site Visit Attendees, posted to NASA Acquisition Internet Services (NAIS) and FedBizOpps. Attendance shall be limited to no more than 4 persons from each Offeror's company.

Government technical and business personnel will be present to discuss requirements. Questions and comments submitted prior to, during, or after the Industry Briefing, but not later than 12:00 Noon (CDT), July 29, 2002, will be addressed prior to release of the final RFP. Questions

should specify the area of the RFP in which clarification is desired. Official responses to all questions received will be available by amendment(s) to the Draft Request for Proposal (DRFP), and posted to (NAIS) and FedBizOpps.

- B. Offerors are urged and expected to inspect representative sites where services are to be performed and to satisfy themselves as to all general and local conditions that may affect the cost of performance of the contract, to the extent that such information is reasonably obtainable. Site inspection may be accomplished only in connection with the Industry Briefing and Site Visit specified above.
- C. Attendance at the Industry Briefing and Site Visit is recommended; however, it is not required nor a prerequisite for proposal submission and will not be considered a factor in the evaluation.

(End of Provision)

L.8

PARTICIPATION BY SMALL BUSINESS, SMALL DISADVANTAGED BUSINESS, WOMAN-OWNED SMALL BUSINESS (WOSB), HUBZONE SMALL BUSINESS, VETERAN-OWNED SMALL BUSINESS (VOSB), HISTORICALLY BLACK COLLEGES AND UNIVERSITIES (HBCU) AND OTHER MINORITY INSTITUTIONS (OMI)

- A. Offerors are advised that NASA seeks to place a fair portion of its contract dollars with small business, small disadvantaged business, woman-owned small business, HUBzone small business, veteran-owned small business, and historically black colleges and universities and other minority institutions. For this procurement, the Contracting Officer has made an assessment and has established small business, small disadvantaged business, woman-owned small business, HUBzone small business, veteran-owned small business and historically black colleges and universities and other minority institutions participation goals (at the prime and/or subcontract level). The Contracting Officer's estimate of an appropriate small business participation goal is 22%. Within this goal, the small disadvantaged business is 12%, the woman-owned small business is 6%, the HUBzone small business is 3%, veteran-owned small business is 2%, and the historically black colleges and universities and other minority institutions is 0.5%. For the purpose of establishing subcontracting baselines for this requirement, subcontracting goals are stated as a percentage of total contract value rather than total planned subcontracting value.
- B. NASA encourages all Offerors to propose to meet or exceed these goals to the maximum extent practicable. Offerors should make an

independent assessment of opportunities for the identified categories to participate in this procurement and propose goals based on the total contract value rather than as a percent of total planned subcontracting. Offerors should also discuss proposed methods for achieving the goals. Offerors should discuss the types and amount of work, in terms of total dollars, that will be performed by these entities. This discussion should include any plans for utilizing such concerns in high technology areas. (High technology means research and/or development efforts that are within or advance the state-of-the-art in a technology discipline and are performed primarily by professional engineers, scientists, and highly skilled and trained technicians or specialists).

- C. An Offeror that is a large business shall submit with its proposal a subcontracting plan in accordance with the clause 52.219-9, Small Business Subcontracting Plan. The North American Industry Classification System (NAICS) Code 561210 and \$23,000,000, respectively, included in Section K, Provision K.6, will be used for determining whether the Offeror, as a prime contractor, is a small or large business. The NAICS Code was chosen based on the requirements, as set forth in Attachment J-1, Statement of Work, for the contract as a whole. This does not necessarily indicate that this NAICS Code (and size standard) would be applicable to every service or product that could be acquired through subcontracting during the performance of the contract. The prime contractor shall determine the appropriate NAICS Code, and corresponding size standard, for each specific category of products and/or service(s) proposed to be furnished through subcontracting.

(End of Provision)

L.9

PROPOSAL PAGE LIMITATIONS (1852.215-81) (FEB 1998)

- A. The following page limitations are established for each portion of the proposal submitted in response to this solicitation.

<u>Proposal Section</u>	<u>Page Limit</u>
Volume I - Mission Suitability Proposal	150
Volume II - Cost/Price Proposal	No Limit
Volume III - Past Performance Proposal	50
Volume IV - Representations & Certifications (Section K) (along with completed RFP & signed SF 33)	Not Applicable

Your proposal shall be submitted in separate loose leaf binders organized as shown in L.10 with each section appropriately tabbed and identified.

The following documents are excluded from the above page limitation but will be evaluated under Mission Suitability Factor:

1. Key Personnel Position Descriptions and Resumes, and rationale, per format provided.
2. Job Description/Qualification (JD/Q) Forms, all personnel other than key, per format provided.
3. Contractor's draft Safety and Health Plan per DRD 987SA-001, not to exceed 30 pages.
4. Quality Control Plan per DRD 987QE-001, not to exceed 15 pages.
5. Small Business Subcontracting Plan, not to exceed 20 pages.
6. Contractor's draft Management Plan per DRD 987MA-002, not to exceed 20 pages.
7. Core Values Response.

The following items are also excluded from the page limitation under Mission Suitability. Any data contained on these pages will not be evaluated under Mission Suitability or any other Volume: Title pages, table of contents, acknowledgements, blank divider pages, covers, and tab separators.

- B. A page is defined as one side of a sheet, 8 1/2" x 11", with at least one inch margins on all sides, using not smaller than 12 point Times New Roman font. Foldouts count as an equivalent number of 8 1/2" x 11" pages. The metric standard format most closely approximating the described standard 8 1/2" x 11" size may also be used. Diagrams, charts, and photographs may be reduced but still must be clearly legible, and if necessary, run landscape or folded to eliminate oversize pages. Text in diagrams, charts, and photographs shall be no smaller than the 8 point type, Times New Roman.
- C. Title pages and tables of contents are excluded from the page counts specified in Paragraph A of this provision. In addition, the Cost/Price Proposal is not page limited. However, this section is to be strictly limited to cost and price information. Information that can be construed as belonging in one of the other sections of the proposal will be so construed and counted against that section's page limitation.

- D. If final revisions are requested, separate page limitations will be specified in the Government's request for that submission.
- E. Pages submitted in excess of the limitations specified in this provision will not be evaluated by the Government and will be returned to the Offeror.

(End of Provision)

L.10

OFFEROR'S PROPOSAL SUBMISSION REQUIREMENTS

- A. The due date and time for receipt of proposals follows:

SUBMITTAL I

Due: No later than September 5, 2002, 12:00 Noon (CDT)

Volume III - Past Performance Proposal (original + five copies) along with Completed Key Personnel Position Descriptions and Resumes, and rationale.

SUBMITTAL II

Due: No later than September 19, 2002, 12:00 Noon (CDT)

Volume I - Mission Suitability Proposal (original + 10 copies)
Volume II - Cost/Price Proposal (original + five copies)
Volume IV - Representations and Certifications (Section K), along with completed RFP and three (3) SF 33s with original signatures.

In addition to the hardcopy, an electronic version of each volume shall be provided utilizing Microsoft Word 2000 for any narrative and Excel 2000, as appropriate. Earlier versions will be acceptable if compatible with the 2000 version. If data files are delivered in compressed format, Offeror shall insure that the files are self extracting or that the software program(s) required to extract the files to their original format is included. All electronic files delivered to the Government shall be virus-free. If any variation in content between the hardcopy and electronic copy is noted, the hardcopy shall be considered the official proposal.

- B. Proposals may be mailed to the address specified in block 7 of the SF 33. The preferred method of delivery is hand-carry. Proposals hand-carried to MSFC on the date due shall be delivered to building 4203, basement lobby prior to the times specified in paragraph A. Offerors should use the telephone provided in the 4203 basement lobby to call 5-2097, Glynda H. Meeks, for pickup. Offerors shall contact Ms. Meeks, (256) 961-2097, to coordinate the delivery of any proposal that will be

hand carried to MSFC on a date prior to those specified in paragraph A. Due to increased security at the entrances to Redstone Arsenal and Marshall Space Flight Center, all Offerors that hand-carry proposals shall allow adequate time to meet the deadlines noted above. Offerors not currently badged for Redstone Arsenal access, and driving privately-owned vehicles (POV) must provide driver's license, proof of automobile insurance, proof of ownership, and Government point of contact. All POV's are subject to search. Any need for an escort will be by appointment, 961-2097, and will be made on a first come-first serve basis. Offerors shall make adequate time allowances to deal with any unforeseen delays. The Government is not responsible for any late proposals.

- C. Concurrent with the above submission, Offerors shall forward two (2) copies of the Cost/Price Proposal, marked RFP 8-1-2-A2-D9566/NASA Proposal Evaluation Material, Source Selection Information to your cognizant Defense Contract Audit Agency (DCAA) office for audit/verification purposes.
- D. Submission of proposals electronically or by facsimile is not acceptable.
- E. Offers received after the due date and time specified in paragraph A will be processed in accordance with FAR Clause 52.215-1, "Instructions to Offerors - Competitive Acquisitions."
- F. Requests for extension of due date are strongly discouraged.

(End of Provision)

L.11 RESERVED

L.12 ACCEPTANCE PERIOD OF PROPOSAL

- A. Acceptance period, as used in this provision, means the number of calendar days for awarding a contract from the date specified in this solicitation for receipt of proposals.
- B. This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.
- C. The Government requires a minimum acceptance period of 180 days.
- D. The Offeror allows the following acceptance period: _____.
(Offeror may propose a longer acceptance period).

- E. An offer allowing less than the Government's minimum acceptance period will be rejected.

(End of Provision)

L.13

INSTRUCTIONS FOR PROPOSAL PREPARATION

A. Introduction

This RFP is issued to obtain proposals for providing COSS in accordance with the performance-based SOW set forth in Attachment J-1.

The contract resulting from this RFP will be on a performance basis wherein Government direction will be limited to the minimum necessary to assure operational requirements are met. The selected Contractor shall be responsible for staffing the contract with appropriate skills and numbers of personnel to assure excellence of performance within the price proposed and negotiated. Offerors are encouraged to consider innovative productivity improvements as well as cost effective quality enhancements.

Offerors are reminded that the MSFC Team is committed to the MSFC Values: People, Customers, Excellence, Teamwork, and Innovation. These values are described in greater detail in Attachment L-1. The MSFC Team expects the successful Offeror to be equally committed to these Core Values. Offerors are encouraged to demonstrate their commitment to these values and describe how their own values match those of the MSFC Team.

The contents of this RFP should be carefully reviewed to assure that all requirements for proposal data, detail and supporting rationale are fully met. Failure to provide such rationale may be just cause to exclude that proposal from further consideration for selection. Questions relative to any area wherein RFP clarification appears warranted should be submitted in writing no later than August 29, 2002. Questions will be answered in the form of an amendment(s) to the RFP, posted on NAIS and FedBizOpps. Questions received after August 29, 2002 will be answered only if time permits.

Questions of any nature shall not be directed to technical activity personnel. Any communication in reference to this solicitation shall cite the solicitation number and be directed to the following Government representative:

Name: Glynda H. Meeks
Phone: (256) 961-2097
Address: George C. Marshall Space Flight Center
Marshall Space Flight Center, AL 35812
Attention: PS31-C/Glynda H. Meeks
Building 4203, Basement Lobby
E-Mail: glynda.meeks@msfc.nasa.gov

The following information is provided to assist Offerors in understanding the information needed to make an objective selection for this procurement. Since this information constitutes the major basis for formal evaluation, it will be advantageous to the Offeror to present commitments in a clear and concise manner. An outline is provided below as an aid in organizing the proposal and should not be construed as an indication of the order of importance or relative weighting within the individual mission suitability subfactors.

Volume I - Mission Suitability Factor

- Subfactor 1 - Management Approach
- Subfactor 2 - Approach to Meeting Requirements
- Subfactor 3 - Quality Control
- Subfactor 4 - Safety, Health, and Environmental
- Subfactor 5 - Small Disadvantaged Business (SDB) Participation

Volume II - Cost/Price Factor

Volume III - Past Performance Factor

B. **General**

The Government intends to evaluate proposals and award a contract without discussions with Offerors (except clarifications as described in FAR 15.306(a)). Therefore, Offeror's should exercise care in fully completing all required volumes and submit their most competitive proposal initially. However, if deemed so by the Government, all offers shall be subject to negotiation; however, an Offeror could be removed from a competitive range, price and other factors considered, if other than its most realistic proposal is submitted.

C. **Volume I - Mission Suitability Factor - General Instructions**

1. All pages in Volume I shall be numbered and identified with the Offeror's name, RFP number, and date. A table of contents shall be provided with figures and tables listed separately. In order to

expedite the evaluation process, a compliance matrix shall be included to identify proposal relationship to specific SOW area.

2. The proposal format shall parallel the format of the Mission Suitability Subfactors as outlined below under Paragraph D, "Specific Instructions." However, the items listed are not all-inclusive. Offerors should include in their proposals any further discussion they believe to be necessary or useful in demonstrating their ability to perform the work. Each section of the proposal, if appropriate, shall specify the paragraph number from the SOW, Attachment J-1, which is being addressed.

Each section of the proposal shall fully address its particular area so that evaluation of each factor/subfactor can be accomplished separately

3. Both technical and management information shall be included in the Mission Suitability proposal. No cost/price data shall be included except as required under the Mission Suitability "Specific Instructions." The proposal should not assume that the evaluation team is aware of your abilities, capabilities, plans, facilities, organization, or any other pertinent fact that is important to accomplishment of work. Further, the evaluation will be based primarily on the information presented in the written proposal. Each listed evaluation subfactor shall be specifically addressed.

D. Volume I - Mission Suitability Factor - Specific Instructions

The content of the Offeror's Mission Suitability Proposal will provide the basis for evaluation of the Offeror's response to the technical requirements of the RFP. The Offeror shall identify those areas of the SOW the Offeror considers critical or of high risk. Discuss the Offeror's approach to minimizing risks and ensuring successful performance of the SOW. As a minimum, the Mission Suitability Proposal shall address the following subfactors which are listed in Section M provision, "Evaluation Factors for Award."

SUBFACTOR 1 - MANAGEMENT APPROACH

The Offeror shall submit a management approach that describes, from an administrative and technical standpoint, how it intends to bring the services identified in the performance-based SOW to full operational status, and the manner and means by which these services, once established, will be maintained for elements MP1 through MP5 below. Selected elements of the approach shall be addressed in a draft Management Plan DRD 987MA-002.

MP1 - Management Approach to Providing All Services

The Offeror shall provide a description of the Offeror's planned organizational structure to include the organization chart relationship to the corporate office, the proposed contract site organization chart, and the subcontractor relationship within the site organization chart. Complete rationale for the organization structure shall be provided to demonstrate a logical, organized approach to the (1) integrated planning that includes interface for outage support and customer notification, (2) controls that include adherence to schedules and operational performance, (3) reports of contract activities, and (4) interfaces for all other support activities identified in the SOW that support the Center Operations Support Services and the MSFC Core Values. The Offeror shall describe its Core Values and any correlation between those values and the MSFC Core Values (see Attachment L-1). The Offeror's Core Values, their correlation to the MSFC Core Values, and demonstration of the ability to implement trade-offs between the Offeror's individual Core Values shall be addressed.

The Offeror shall discuss the proposed management approach to plan, direct, control, and manage each of the services identified in the performance-based SOW, describe the managers' functions, authority, reporting structure, and access to corporate resources. The Offeror shall describe the degree of local autonomy including the authority of the on-site program manager.

MP2 - Planned Subcontracts and Teaming

The Offeror shall provide the details of any planned subcontracts, teaming arrangements or other associated contractual arrangements. If teaming or subcontracting arrangements are proposed, provide the name of the company(ies) selected, the basis of the selection(s), and the type of proposed subcontract(s). In addition, for each major subcontractor (subcontracts over \$500,000), describe how management and control policies will be implemented, and how work will be controlled, reported, and reviewed.

Offerors shall discuss proposed small business, woman-owned small business, HUBzone small business, veteran-owned small business, and historically black colleges and universities and other minority institutions' participation in comparison with the goals stated in L.8, and the methods for achieving these goals. (Small disadvantaged business is addressed as a separate element under SD1). The Offeror shall clearly identify the proposed types and amounts of work to be performed by small business, woman-owned small business concerns, HUBzone small

business, veteran-owned small business, and historically black colleges and universities and other minority institutions, emphasizing utilization of any high technology efforts.

MP3 – Phase-In/Phase-Out Approach

The Offeror shall provide a phase-in/phase-out approach that addresses, as a minimum, the Offeror's approach to ensure continuity and a smooth transition with the incumbent contractor during the phase-in period, severance pay policy, and plan to ensure a successful transition to a successor contractor upon completion of the contract.

MP4 - Key Position Descriptions, Rationale, and Personnel Qualifications

The Offeror shall clearly identify the key positions, give rationale for selection of these positions as key positions, and provide a position description for each key position using the Key Personnel Position Description and Resume (see Attachment L-2). Resumes shall include the education, summary of experience in similar work (Government and commercial contract experience), other applicable experience, and the name and telephone number of that individual's immediate supervisor for each prior position held. The Offeror shall demonstrate the degree of commitment of the individuals identified as key (as determined, for example, by letters of intent and resumes). State the percentage of time each key person will devote to this effort. The Offeror should also state if any of the key personnel identified in this proposal are being proposed as key personnel on any of the Offeror's other concurrent proposals.

It should be noted that Key Personnel Position Descriptions and Resumes, and rationale shall be submitted as a distinct package when Volume III, Past Performance Proposal is submitted. Key Personnel Position Descriptions and Resumes, and rationale will not be counted against the page limitation but will be evaluated under the Mission Suitability Factor. Any additional narrative to address this element shall be included in the Mission Suitability Proposal.

MP5 – Risk Assessment

The Offeror shall submit a risk assessment for the complete Management Approach subfactor. The analysis shall identify and discuss risk factors and include a recommendation to mitigate the impact of the identified risks.

SUBFACTOR 2 - APPROACH TO MEETING THE REQUIREMENTS

UA1 – Narrative Demonstration of Understanding Performance- Based SOW Requirements

The Offeror shall provide a SOW compliance matrix with supporting detailed narrative that demonstrates a detailed understanding of the SOW. Within this narrative, the Offeror should discuss its approach to meeting each of the requirements of the SOW and how the Offeror's staffing plan and Cost/Price Proposal is consistent with this approach.

The Offeror shall specifically discuss each of the functions identified in the SOW. This discussion shall include the Offeror's approach to ensuring quality customer service and quality improvements.

UA2 – Staffing

The Offeror shall provide an approach to staffing and recruiting that demonstrates an understanding of the skill mix, the levels of expertise and qualifications for positions other than key, and the distribution and effective use of the work force, including staffing levels, necessary to support this requirement. This staffing approach shall support the entire site organization as described in MP1 and provide direct correlation to the SOW. The staffing and recruiting approach shall include, as a minimum:

1. Proposed skill categories and the number of personnel in each category. Discuss any difficulties you anticipate in fulfilling the staffing requirements of this contract.
2. Approach to cross-training, replacement and backup for non-key personnel. Include plans for on-going training, the plans for training and integrating newly hired personnel, and the approach for providing backup for all personnel (excluding key personnel) for absences due to vacation, illness, etc. Describe procedures to replace personnel who leave the Offeror's employment.
3. Approach for attracting and retaining high quality personnel. Provide an estimate of the number of incumbent employees you expect to hire and the rationale for your estimate. Discuss your corporate policies for continuing/replacing the benefits of the employees that you expect to obtain from the incumbent Contractor (e.g. seniority, accrued sick and annual leave, compensatory time, health plans, 401K plans, etc.).

4. A completed Job Description/Qualification Form (Attachment L-3) for all job titles (positions) other than those submitted as key personnel.

The Offeror shall also include a Total Compensation Plan.

1. The Offeror shall address all proposed labor categories, including those personnel/classifications subject to the Service Contract Act (involves both "Area" Wage Determinations and "4(c) Wage Determinations [based on union collective bargaining agreements]), and those exempt from both of the above. The Total Compensation Plan shall include the salaries/wages, fringe benefits (health and welfare, holidays, vacation, etc.), and all other types of leave programs proposed for each of these categories of labor. The plan shall also include a discussion of the consistency of the plan among the categories of labor being proposed. Differences between benefits offered professional and non-professional employees shall be highlighted. The requirements of this plan may be combined with those required by the Provision at FAR 52.222-46, "Evaluation of Compensation for Professional Employees."
2. The Offeror shall provide written support to demonstrate that its proposed total compensation plan is reasonable and that it is compliant with the Federal labor standards (i.e., Service Contract Act, Contract Work Hours and Safety Standards Act, Fair Labor Standards Act, etc.).
3. The Offeror shall include the rationale for any Service Contract Act conformed classification(s) and demonstrate why they do not fall within the scope of any classification already listed in the applicable wage determination(s)
4. The Offeror shall require all proposed service subcontractors to provide the same information as well. This information shall be submitted directly to the Government by the subcontractor to meet the submittal requirements in L.10.A.
5. It should be noted that only information relative to the compensation plan pertaining to the discussion of logic or rationale should be submitted as part of Submittal II, Volume I, Mission Suitability Proposal. Data such as formulas, factors, rates, etc., shall be submitted as part of Volume II, Cost/Price Proposal.

UA3 – Innovations with Supporting Rationale

The Offeror shall identify and provide supporting rationale for any proposed innovations. MSFC desires the most cost effective performance in all operational areas. Innovation, cost effectiveness, and low cost planning shall be considered and evaluated in order to emphasize productivity improvement. Due to anticipated budget constraints, Offerors should consider proposing innovative methods to control and reduce costs. For example, techniques could include the use of performance-based fixed price subcontracts in appropriate areas that utilize objective measurable performance indicators. Offerors are encouraged to translate this emphasis into every work element proposed in order to maximize performance in the proposed contract. The Offeror shall include a summary of any innovations or “extras” with the specific area of the proposal identified. This summary of innovations or “extras” should be included to expedite the evaluation process. Any innovations or “extras” identified in the Offeror’s proposal and evaluated by the Government shall be incorporated into and become a binding part of the contract.

UA4 - Reliability Centered Maintenance (RCM) Implementation

The Offeror shall describe the proposed implementation of RCM. The Offeror shall relate the RCM to attaining the required building and system availability at the lowest life cycle cost while meeting security, safety, health, and environmental requirements. The Offeror shall discuss strategies that will be applied to maintenance task development to take advantage of the individual strengths of reactive, preventive, condition based, and proactive maintenance practices. The Offeror shall discuss maintenance task modification based on Failure Mode and Effects Analysis (FMEA) and age exploration.

UA5 – Predictive Testing and Inspection Technologies (PTI)

The Offeror shall describe the proposed implementation of Predictive Testing and Inspection technologies at MSFC. Discuss the following PT&I technologies with respect to types of failures that shall be avoided by using a specific technology and data indicator changes that would warrant possible increased observations or planned maintenance. An example is the use of infrared thermography for heat rise associated with some component and the actions taken as result of that heat rise. The Offeror shall discuss the implementation of other PT&I technologies which may be applicable.

1. Vibration Analysis
2. Lubricant Oil Condition

3. Infrared Thermography
4. Motor Analysis
5. Motor Circuit Analysis
6. Motor Current Spectrum Analysis
7. Insulation Resistance
8. Surge Testing
9. Airborne Ultrasonic
10. Ultrasonic Thickness
11. Laser Equipment Leveling

UA6 – Work Control Center Operations

The Offeror shall describe how they will set up a Work Control Center to process, status, and provide notification for staffing requirement projections, training requirements, and how work will be integrated into the daily work flow process. The Offeror shall describe how they will effectively operate and maintain a Government furnished Computerized Maintenance Management System (CMMS) using the MAXIMO software. The existing CMMS uses the MRO Software's MAXIMO Extended Enterprise Version 4.1.1.

UA7 – Risk Assessment

The Offeror shall submit a risk assessment for this subfactor that identifies risk areas. The assessment shall identify and discuss risk factors and include a recommendation to mitigate the impact of the identified risks.

SUBFACTOR 3 - QUALITY CONTROL

QC1 – Quality Control Approach

The Offeror's proposal shall clearly demonstrate an understanding of the principles involved with a performance-based SOW as they relate to the implementation of all tasks described in the SOW, the Performance Requirements Summary (PRS), and the Quality Control Plan (QCP), and the utilization of proposed organizational structure and management process in assuring quality control.

The Offeror's approach shall describe in detail the approach to ensure quality control throughout each of the contract elements. Discuss the quality control policies, standards, procedures, and techniques proposed to use as a self-evaluation process to assure the Government that quality levels are acceptable. Describe approaches to meet applicable sections of an ANSI/ISO/ASQ Q9001: 2000 system related to facilities

maintenance. Discussion should clearly indicate which aspects of the proposed QCP may be applicable to all contract elements and which aspects of the QCP may be applicable to only selected contract elements. For those aspects of the QCP that are applicable only to a selected contract element, fully explain the rationale for this approach.

The Offeror shall discuss proposed procedures, techniques, and mechanisms for implementing the QCP and making employees aware of all its aspects. Discuss techniques for enhancing quality consistency and continuous quality improvement, including techniques for sensitizing employees relative to maintaining and enhancing quality workmanship.

The Offeror shall provide a description of the proposed quality system. The system shall cover all contract services, specify work to be inspected on either a scheduled or unscheduled basis, and describe how inspections are to be conducted. Fully describe proposed methods of providing proactive, self-initiated corrective actions and revisions, updates, audits, and timely delivery of contract requirements. Discuss the techniques, procedures, and mechanisms the Offeror will use to ensure timeliness, completeness, and intended function of all work. Discuss proposed provisions for recording the results of inspections and for recording corrective action taken.

The Offeror shall discuss the qualifications of the individual employees, supervisors, and management responsible for performing the quality inspections, and the extent of their authority.

The Offeror shall discuss the sanctions to be employed for non-adherence to standards or quality output.

The Offeror shall discuss obtaining and utilizing feedback from MSFC customers in continuously evaluating the quality of products and services, and the mechanisms for incorporating the feedback into the work environment.

The Offeror's quality approach shall be used as the basis for developing the QCP.

QC2 – Risk Assessment

The Offeror shall submit a risk assessment for this element that identifies risk areas. The assessment shall identify and discuss risk factors and include a recommendation to mitigate the impact of the identified risks.

SUBFACTOR 4 – SAFETY, HEALTH, AND ENVIRONMENTAL

SH1 – Safety and Health Plan

The Offeror shall describe their policies of workplace safety and health and the training initiatives to promote safety and health in and around MSFC (including near-site locations). Note any processes for ensuring that on-site personnel follow the MSFC policies and procedures for workplace safety and health. The Offeror shall submit for evaluation a draft version of the Data Requirement Document 987SA-001, Safety and Health Plan, as set forth in Attachment J-2. The Safety and Health Plan shall include provisions for compliance with environmental laws and regulations.

SH2– Risk Assessment

The Offeror shall submit a risk assessment for this subfactor that identifies risk areas. The assessment shall identify and discuss risk factors and include a recommendation to mitigate the impact of the identified risks.

SUBFACTOR 5 – SMALL DISADVANTAGED BUSINESS (SDB) PARTICIPATION

NOTICE: These instructions apply to both large and small business Offerors. They apply to SDB Offerors only if the SDB Offeror has waived the price evaluation adjustment factor by completing paragraph c of FAR Clause 52.219-23, "Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns" in Section I of this solicitation. The waiver, if elected, makes the SDB Offeror ineligible for the price evaluation factor adjustment but eligible for the evaluation credit (points) associated with the SDB participation factor described in Section M.

SD1 - Total Target for SDB Participation

Indicate the total target for SDB participation, expressed both in dollars and as a percentage of contract value, for both the (a) Contractor, including joint venture partners and team members and (b) all subcontractors per Provision L.8.

SD2 - Type of Work to be Performed

Describe the type of work that will be performed by SDB subcontractor(s). Identify any work considered "high technology" as defined in NFS 1819.001.

SD3 - Record of Past Participation of SDB

Provide a record of past participation of SDB concerns in subcontracts and the type of work subcontracted such as production, engineering services, research, development, etc., over the past three full years.

Identify by contract number and contracting agency, SDB contracting incentives earned under any Government contracts in the last three years. If incentives were available, but not earned, so state. Also, provide a brief description of established or planned procedures for SDB outreach, assistance, counseling, market research, and SDB identification, along with relevant purchasing procedures. Large businesses may reference applicable portions of the submitted Small Business Subcontracting Plan.

E. Volume II - Cost/Price Proposal - General Instructions

1. All pages in Volume II shall be numbered and identified with the Offeror's name, RFP number, and date. A table of contents shall be provided with figures and tables listed separately. The Offeror shall provide a narrative at the beginning of Volume II that identifies each indirect component with its associated value for Lump Sum and Prepriced work and a narrative for all of the coefficient subfactors with their associated value for IDIQ work. The indirect components associated with Lump Sum and Prepriced work and the coefficient subfactor components will be used in the evaluation for reasonableness and realism of proposed prices and price components.
2. The initial period of performance is for one (1) year, including phase-in. The Government may, at its option, extend the contract for up to four, one-year option periods. For pricing purposes, the Offeror shall use a start date for the base period of March 1, 2003.
3. Offeror's are reminded that proposed prices shall not include any contingency to cover increased costs for which an adjustment is provided under the Section I Clause, FAR 52.222-43.
4. Offerors shall complete Contract Line Item Number (CLIN) Basis of Estimate (BOE) form(s) for Lump Sum and Prepriced work to include an itemization of the basis of estimate for each Lump Sum or Prepriced CLIN. Blank forms that include each CLIN are provided as Attachment L-4. The rationale column shall briefly identify skill or skill mix anticipated to perform the service, the labor rate for those skills, estimated performance time in hours, and material cost.

Both the labor rate and material cost will include the fully burdened cost. The Offeror may use historical data provided in various attachments, Offeror's experience, and relevant reference material for the BOE. An example is provided in Attachment L-5. The Offerors shall round BOEs to whole dollars. The forms shall be submitted for the Base Period (including phase-in) and each of the four option periods. This form is designed to allow Offerors to provide the basis of the pricing to support the total value of each CLIN identified in Section B as Lump Sum and Prepriced Work. Upon completion of the BOE forms, the CLIN values shall be transferred to the attached Section B, Schedule of Prices sheets.

5. Offerors are required to provide complete detail for all coefficient subfactors (Section B.5) and include subfactor and coefficient factor data on Attachment L-6. The appropriate coefficient factor will then be applied to the total of the unit costs to establish the price of each FWR/DO.

- a. Prepriced - IDIQ Work

The Contractor shall perform any and all functions specified in the SOW as Prepriced for the amounts offered in the Section B Microsoft Excel spreadsheet titled "Schedule of Prices for Prepriced Work," for the base and each option year. The Contractor shall prepare proposals in accordance with the provisions of Attachment J-1, Paragraph 1.6 for Prepriced IDIQ work. Prepriced work includes all costs, direct and indirect, including labor, materials, tools, and special equipment, overhead, G&A, and profit, to provide one unit of work-in-place, as listed on the "Schedule of Prices for Prepriced Work."

- b. Coefficient Factor - FFP IDIQ

The Contractor shall perform any and all Unit Price Book, Fixed Labor Rate, and Specialty Services specified in the SOW, on individual FWRs or DOs against this contract, for the bare cost specified, multiplied times an applicable coefficient factor described and explained below. As used herein, bare costs means the amount agreed to or determined in accordance with the provisions of Attachment J-1 before the application of the applicable coefficient factor.

The coefficient factor submitted by the Contractor for the base and each option year, utilizing "Schedule of Prices for Coefficients Form" located at the end of this section, shall be

applied to the total of the bare costs to establish the price of each FWR or DO.

(1) Labor Coefficient

The following three (3) subfactors are used to develop the Contractor's coefficient factor:

(a) Indirect Subfactor

The Indirect Subfactor includes all costs that would normally be charged as indirect. Costs that are considered to be indirect include: General and Administrative; Overheads; Labor Burdens; Subcontract Administration; Quality Control; Office Management and Equipment; Project Management and Supervision; Proposal Preparation; Price Quotations; Employee payroll Taxes; Insurance; Business Taxes; Memberships; Depreciation of Equipment, Tools, and Office Equipment; Compliance with Tax and Labor Laws; Accounting; Procurement; Personnel Administration; Training/Certifications; Safety and Compliance with Environmental Laws (i.e. Safety Rails, face and clothing protection, etc.); As-built Drawings; Submittals; Permits; Licenses; Insurance; Protection of and/or Moving Government Property; Traffic and Work Site Signs and Barriers; Temporary Utilities; All Waste and Excess Material; Mobilization and Close-out for each FWR/Delivery Order; General Equipment including Ladders, Scaffolding, Wheelbarrows, Small Tools and other Construction Aids; Security; Clean-up including vacuums; Dumpster and Loading Charges; and Bin Materials.

In addition to the above, the following items shall be included in the Indirect Subfactor and also not priced separately in individual FWRs or DOs:

- 1) Costs for ladders, rolling scaffolds, scissors, lifts, etc., for work up to 15 feet above finished floors
- 2) Dumpster and loading charges for FWRs or DOs with a total price of less than \$25,000
- 3) Costs for signs, traffic cones, barricades, caution tape, safety tape, etc.
- 4) Costs for confined entry equipment

- 5) Costs for cleanup work including vacuums, filters, etc.
- 6) Equipment costs for small, commonly used tools
- 7) Subcontractor mark-ups for overhead and profit
- 8) Bin materials and supplies listed in Attachment J-1
- 9) Asbestos equipment, such as High Efficiency Particle Accumulator (HEPA) vacuums, decontamination units, and respirators.

The Indirect Subfactor should be entered as a multiplier in the "Schedule of Prices for Coefficients." For example, if the indirect amount of 20% was proposed by the Contractor to cover all indirect costs, the Contractor should enter 1.20.

(b) Work Conditions Subfactor:

Some or all of the following work conditions apply to most FWRs or DOs issued by the Government at MSFC and therefore shall be included in the Contractor coefficient factor and not priced separately in individual FWRs or DOs. The Contractor shall include in this subfactor any adjustments necessitated by operating under these conditions:

- 1) Working in occupied areas
- 2) Working through/above ceiling grids
- 3) Disruptions and allowances for utility and equipment outages
- 4) Working in phases
- 5) Working in restricted or confined areas
- 6) Working in congested space
- 7) Disruptions and allowances for tests
- 8) Disruptions and allowances for excavation and work restrictions during missions

The Work Condition Subfactor should be entered as a multiplier in the "Schedule of Prices for Coefficients." For example, if an amount of 1% was proposed by the Contractor to cover work conditions, the Contractor should enter 1.01.

(c) Profit Subfactor

This Profit Subfactor represents the percentage of profit for the IDIQ portion of the contract. The Profit Subfactor

should be entered as a multiplier in the "Schedule or Prices for Coefficients." For example, if an amount of 5% of the total price was proposed for profit, the Contractor should enter 1.05.

The resulting Contractor FFP labor coefficient is the product of the FFP subfactors.

The subfactors and coefficients for FFP, T&M, and Specialty Services and Equipment work for each contract period are to be transferred to Section B, Schedule of Prices.

(2) Material Coefficient

Material handling coefficient shall include only costs clearly excluded from the labor-hour rate. Material handling coefficient may include all appropriate indirect costs allocated to direct materials in accordance with the Contractor's usual accounting procedures.

c. Coefficient Factor - Time and Material IDIQ Work

(1) Labor Coefficient

The following two (2) subfactors are used to develop the Contractor's T&M labor coefficient factor:

(a) Indirect Subfactor:

The indirect subfactor shall consist of the Contractor's overhead and general and administrative expense.

The indirect subfactor should be entered as multiplier in the "Schedule of Prices for Coefficients." For example, if the indirect amount of 20% was proposed by the Contractor to cover indirect costs, the Contractor should enter 1.20.

(b) Profit Subfactor:

This subfactor represents the percentage of Profit for T&M IDIQ. The Profit Subfactor should be entered as a multiplier in the "Schedule of Prices Coefficients." For example, if an amount of 5% of the total price was proposed for profit, the Contractor should enter 1.05.

The resulting Contractor T&M labor coefficient is the product of the T&M subfactors.

(2) Material Coefficient

Material handling coefficient shall include only costs clearly excluded from the labor-hour rate. Material handling coefficient may include all appropriate indirect costs allocated to direct materials in accordance with the Contractor's usual accounting procedures.

d. Specialty Services and Equipment Coefficient

Specialty services and equipment coefficient will not utilize the coefficient factor and subfactors detailed above, but will have a separate and unique coefficient specifically for subcontracted work.

6. The Offeror shall transfer the total Lump Sum and Prepriced Work pricing data for the base period and each of the four option periods to Attachment L-34. The Offeror shall also insert the appropriate IDIQ coefficient factor on Attachment L-34 and multiply the Government-provided bare cost by the coefficient factor to provide IDIQ cost/price data for evaluation purposes. An example of a completed cost/price evaluation is included in Attachment L-34.

F. Volume II - Cost/Price Proposal - Specific Instructions

The cost/price proposal as submitted shall, as a minimum, include MSFC COSS Lump Sum and Prepriced Work Basis of Estimate (BOE) - Contract Line Item Number forms and Summary of Cost/Price shall be completed for the Prime and all subcontracts valued at \$500,000 or more, as described below.

1. Section B. The Offeror's Schedule of Prices for Lump Sum work, Prepriced Work, Coefficient Factors, and Fixed Labor Rates shall be submitted on the forms provided in Section B consistent with the Basis of Estimate.
2. Price information is required per Attachment L-4. Proper completion shall include identification of the cognizant DCAA and Defense Contract Management Offices.
3. Summary of Fixed Price Lump Sum. Attachment L-7 shall include the total price broken out by (1) Prime and major subcontracts

associated with all Lump Sum fixed price work; and (2) phase-in period, base contract year, each option year, and grand total. For price purposes, major subcontracts are defined as those subcontracts in excess of \$500,000.

4. Phase-in Costs. Identify as a separate amount, any phase-in costs associated with the phase-in period and transition from the current contract requirements and staffing levels to those anticipated to fulfill the requirements of this RFP. Include cost of administration, relocation, employee sign-on, training, re-training, and any other costs associated with the phase-in/phase-out plan. Phase-in costs should be fully explained as it relates to the phase-in/phase-out approach included in the Management Approach of your Mission Suitability Proposal (Volume I). For evaluation purposes, the proposer shall submit the costs for providing a full twelve (12) months of effort for the first contract year assuming that no phase-in is required; this will provide the Source Evaluation Board with a common basis for evaluating each of the proposals. Phase-in costs shall be shown on Attachment L-4 "Base Year."

G. Volume III - Past Performance Proposal - General Instructions

All pages in Volume III shall be numbered and identified with the Offeror's name, RFP number, and date. A table of contents shall be provided with figures and tables listed separately.

H. Volume III - Past Performance Proposal - Specific Instructions

Offerors shall submit their Past Performance history in the following format and sequence to include all information prescribed below for both the Offeror and proposed major subcontractors. The Offeror shall demonstrate specific characteristics such as resourcefulness, responsiveness, communication, and management determination in showing that the organization lives up to its commitments.

1. A list of contracts and subcontracts (valued over \$500,000) that have been completed during the past three years, or are currently in process, that are similar in size, content, and complexity to this requirement shall be submitted. Contracts listed may include those entered into by the Federal Government, agencies of state and local governments, and commercial customers. The Offeror shall provide the Government with the following information for each contract and subcontract referenced:
 - a. Customer's name, address, and telephone number of both the lead contractual and technical personnel. Ensure that the

information is correct and accurate by testing the phone numbers and addresses.

- b. Contract number, type, total original value, and present or final contract value.
 - c. Date contract was awarded, place(s) of performance, and original contract period of performance, and actual contract period of performance.
 - d. Method of Acquisition: competitive or noncompetitive.
 - e. Experience in cost reimbursable and incentive type contracts.
 - f. Nature of award: initial or follow-on.
 - g. Number of Union Collective Bargaining Agreements associated with this contract.
 - h. Number of grievances and arbitration cases the contractor had during the performance of the contract, (identify type and number).
 - i. If there were arbitration cases, did the contractor prevail in the final decision.
 - j. Number of National Labor Relations Board (NLRB) cases filed against the contractor by the employees' collective bargaining representative (union) during the performance of the contract.
 - k. If there were any NLRB cases filed, did the Board rule in favor of the contractor during the performance of the contract.
 - l. Number of strikes and informational pickets associated with this contractor during the performance of the contract.
 - m. Describe how the respective contract is similar in size and complexity to the Center Operations Support Services requirement at MSFC. It is not sufficient to state that it is comparable in magnitude and scope. Rationale must be provided to demonstrate that it is comparable.
2. For each of the contract/subcontract(s) listed above, briefly describe how the effort demonstrates your capabilities to perform this requirement.

- a. Center Operation Support Services at other installations that are similar in size and complexity to MSFC.
- b. Description of contract work and comparability to the proposed effort. It is not sufficient to state that it is comparable in magnitude and scope. Rationale must be provided to demonstrate that it is comparable.
- c. Innovations used to maintain facilities and services, due to decreasing budgets.
- d. Experience in FFP and IDIQ delivery contracts.
- e. Experience with meeting internal Quality Assurance functions.
- f. Major technical problems and how they were overcome. List any major deviations or waivers to technical requirements that were granted by the customer. Also, state how the latest technology was provided throughout the life of the contract.
- g. Performance metrics (quality, timeliness, documentation, etc.) for SOW similar in size and complexity.
- h. Adherence to program schedules and incentive performance history.
- i. History of cost control and accuracy of estimates.
- j. Terminated contracts (partial or complete) within the past 3 years and basis for termination (convenience or default). Include the contract number, name, address, and telephone number of the terminating officer. Include contracts that were "de-scoped" by the customer because of performance or cost problems. Include contracts where options were not exercised. Include any safety or environmental violations.
- k. Average number of personnel on the contract per year and voluntary turnover history for exempt and nonexempt employees (or other major categorization used by the Offeror).
- l. Dates of the most recent Government reviews of your management systems (i.e., purchasing, accounting, property, estimating). Data should identify the type of review, including the results of the review, the cognizant Government agency making the review, system approvals (if any), and the latest date of system approval.

- m. Types of quality improvements (i.e., awards or certifications) that indicate the Offeror possesses a high-quality process for developing and providing the service required. Examples of quality awards or certifications include the Malcolm Baldrige Quality Award, other government quality awards, and private sector awards or certifications. Identify what segment of the company (one division or the entire company) that received the award or certification. Describe when the award or certification was received. If the award or certification is over three years old, present evidence that the qualifications still apply.
 - n. Identify any Labor Unions having Collective Bargaining Agreements (CBA) with your company. Provide information on problems encountered/lessons learned and corrective actions taken to resolve those problems.
 - o. Discuss your labor management history over the past three years with specifics such as date(s) of organization attempts and results, and lost workdays as absolutes and percentages.
3. Provide in chart form, the injury rates for the last three calendar years for contracts comparable to this requirement. Include the Loss Time Injury Rate (LTIR), number of injuries or lost workday cases, and the number of hours worked. Also include the Industry Classification Code (Standard Industrial Classification Code (SIC) or North American Industrial Classification System (NAICS)).
 4. The Offeror shall include a summary of all customers to whom it has provided Past Performance Interview/Questionnaire Forms (see Attachment L-10). The forms shall be provided to all of the Offeror's most relevant contracts that are currently being performed or have been performed within the last three (3) years. The Offeror is responsible for forwarding the Past Performance Interview/Questionnaire, along with the attached synopsis of the COSS SOW (Attachment L-8), to customer references, along with the transmittal letter similar to the one provided as Attachment L-9. The Offeror shall request that the Customer references complete the Past Performance Interview Questionnaire Form (Attachment L-10) and return it to PS31-C/Glynda H. Meeks no later than September 5, 2002, 12:00 Noon, CDT. The Offeror is responsible for ensuring that questionnaires are completed and provided to MSFC to meet the stated deadline. In addition to Contractor-provided references, the NASA past performance database and references known to the SEB will be checked as deemed necessary. Instructions for completing

the Past Performance/Interview Questionnaire Forms are contained on the form.

I. Volume IV - Completed Representations and Certifications, RFP, and Signed SF 33

The Offeror shall complete Items 12-18 of the SF 33 and include three copies of the SF 33 in this volume. The three copies of the SF 33 shall have an original signature in Item 17.

The Offeror shall complete all fill-in sections of the RFP and include the completed Model Contract (Sections B - J-1), plus Section K, and completed forms in this volume following the SF 33.

(End of Provision)

L.14 SUMMARY OF DEVIATIONS/EXCEPTIONS (MSFC 52.215-90) (APR 1987)

The Offeror will explain any exceptions (including deviations and conditional assumptions) taken with respect to this RFP. Any exceptions must contain sufficient amplification and justification to permit evaluation. Such exceptions will not, of themselves, automatically cause a proposal to be termed unacceptable. A large number of exceptions, or one or more significant exceptions not providing any obvious benefit to the Government may, however, result in rejection of such proposal(s) as unacceptable. Highlight exceptions in the margin of the proposal where they appear in the text.

(End of Provision)

L.15 MSFC DOCUMENTATION REPOSITORY

- A. NASA and MSFC documents referenced in this solicitation may be obtained by assessing the following URL addresses:

NASA – NPD and NPG –
http://nodis3.gsfc.nasa.gov/library/main_lib.html

NASA – STD –
<http://www.hq.nasa.gov/office/codeq/doctree/safeheal.htm>

MSFC – MPD, MPG, MWI, and OWI –
<https://msfcr03.msfc.nasa.gov/directives/directives.htm>

- B. A viewing room is available at the MSFC Documentation Repository, AD33D, Building 4491, telephone (256) 544-4490, George C. Marshall Space Flight Center, Marshall Space Flight Center, AL 35812 for the following documents. Check-in at the Work Order Desk, room 103. The documents listed below will be available for viewing in room 133.
- MSFC Facilities Data Handbook that includes maps for MSFC as well as floor plans and pertinent data for each facility.
 - MSFC Underground Utility Map
 - NASA's current Facilities Condition Assessment for each building at MSFC that documents the condition of all systems associated with that building. This data is maintained as 80% accurate and Offerors shall use it at their discretion.

(End of Provision)

L.16 REQUIRED FORMS (MSFC 52.253-90) (DEC 1997)

- A. The form checked below is attached to the end of this solicitation and shall be submitted prior to award of any contract resulting from this solicitation, upon request from the responsible contracting office.

 FAR 15.406-2 - Certificate of Current Cost or Pricing Data

- B. The forms checked below are required to be submitted in the performance of any contract awarded as a result of this solicitation. Forms are available in Part 53 of the FAR or NASA FAR Supplement. An information copy of a form may be obtained from the responsible contracting office. See FAR 52.253-1 and 53.105(b) for information on the use of computer generated forms. See FAR 53.107(b) for information on obtaining multiple copies of forms.

 SF 272 - Federal Cash Transaction Report

 X SF 294 - Subcontracting Report for Individual Contracts

 X SF 295 - Summary Subcontract Report

 X SF 298 - Report Documentation Page

 X SF 1034 - Public Voucher for Purchases and Services Other Than Personal

 SF 1413 - Statement and Acknowledgement

SF 1414 - Consent of Surety

 X

SF 3881 - Payment Information Form ACH Vendor Payment System

- _____ NASA Form 533M - Monthly Contractor Financial Management Report
- _____ NASA Form 533Q - Quarterly Contractor Financial Management Report
- _____ NASA Form 778 - Contractor's Release
- _____ NASA Form 780 - Contractor's Assignment of Refunds, Rebates, Credits, and Other Amounts
- _____ NASA Form 1018 - NASA Property in the Custody of Contractors
- _____ DD Form 250 - Material Inspection and Receiving Report
- _____ DD Form 1419 - DOD Industrial Plant Equipment Requisition, if applicable

(End of Provision)

[End of Section]

SECTION M

EVALUATION FACTORS FOR AWARD

M.1 AWARD WITHOUT DISCUSSIONS

As provided for in FAR 52.215-1 "Instructions to Offerors--Competitive Acquisitions," the Government intends to evaluate proposals and award a contract without discussions with Offerors (except clarifications as described in FAR 15.306 (a)). Therefore, the Offeror's initial proposal should contain the Offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(End of Provision)

M.2 NOTICE OF PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS (52.219-23) (MAY 2001)

NOTE: Evaluation shall be in accordance with clause 52.219-23 in Section I.

(End of Provision)

M.3 EVALUATION OF OPTIONS (52.217-5) (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate options for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(End of Provision)

M.4 FULL QUANTITIES (1852.214-72) (DEC 1988)

SECTION M

The Government will not consider an offer for quantities less than those specified. If this is an invitation for bid, the Government will reject as non-responsive a bid that is not made on full quantities.

(End of Provision)

M.5 EVALUATION FACTORS FOR AWARD

A. General

The proposed procurement will be evaluated in accordance with procedures prescribed by the Federal Acquisition Regulation (FAR) and the NASA FAR Supplement (NFS).

B. Source Evaluation Board (SEB)

A Source Evaluation Board (SEB), appointed by the Director of the Marshall Space Flight Center, will evaluate the offers submitted for this Request for Proposal (RFP). Proposal documentation requirements set forth in this RFP are designed to provide guidance to the Offeror concerning the type of documentation that must be submitted to the SEB. Acceptable offers will be evaluated in accordance with the factors set forth below, and oral or written discussions or both will be conducted with all Offerors determined to be within the competitive range.

C. Source Selection Authority

Source selection will be made by the Center Director of the Marshall Space Flight Center.

D. SEB Membership

Steven Pearson
Jimmy Hill

Ed Cornelius
Glynda H. Meeks

E. Evaluation Factors and Subfactors

Acceptable offers will be evaluated using the following factors:

Mission Suitability Factor

SECTION M

Management Approach
Approach to Meeting Requirements
Quality Control
Safety, Health, and Environmental
Small Disadvantaged Business (SDB) Participation

Cost/Price Factor

Past Performance Factor

A general definition of these factors are:

1. Mission Suitability Factor: For each Offeror, this indicates the merit or excellence of the work to be performed, including both technical and management subfactors, as well as proposal risk. Mission Suitability contains five subfactors: 1) Management Approach, 2) Approach to Meeting the Requirements, 3) Quality Control, 4) Safety, Health, and Environmental, and 5) Small Disadvantaged Business (SDB) Participation.
2. Cost/Price Factor. This factor evaluates the reasonableness and realism of proposed prices and price components.
3. Past Performance Factor. This indicates the depth and type of experience and the past performance history of Offerors performing services similar in size, content, and complexity to this requirement. The Past Performance Factor is not scored, however an adjectival rating is assigned.

F. Details Of Evaluation Factors

1. **VOLUME I - MISSION SUITABILITY FACTOR**

The Mission Suitability Factor assesses the excellence of the proposed approach for satisfying the performance based SOW and the Offeror's ability to perform. The Offeror's degree of understanding of the requirements will be assessed in all Mission Suitability Subfactors. A key measure in assessing the Offeror's understanding of the requirements is the adequacy of the Offeror's risk analysis and the recommended approach to minimize the impact of identified risks to the overall success of the program. In addition to risk analysis, cost realism, or the lack thereof, will be used in evaluating the Mission Suitability Subfactors as an indicator of the Offeror's understanding of the requirement.

SUBFACTOR 1 - MANAGEMENT APPROACH

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This subfactor will evaluate the Offeror's proposed management of the services identified in the SOW, from start-up through the life of the contract, including an evaluation of the draft Management Plan DRD 987MA-002.

MP1 – Management Approach to Providing All Services

The Offeror's planned organizational structure will be evaluated, including completeness and appropriateness of organizational structure. The Offeror's management procedures and the managers' functions, authority, reporting structure and access to corporate resources will be evaluated. The evaluation criteria will assess the ability to manage in an efficient and effective manner. The Offeror's Core Values, demonstration of trade-off management between the Core Values, and correlation to MSFC Core Values will be evaluated.

MP2 – Planned Subcontracts and Teaming

The use of subcontractors and teaming arrangements, if proposed, will be evaluated based on their benefits to NASA and the effectiveness of the proposed approach for managing these arrangements to assure that the Government obtains an integrated team. Offerors will also be evaluated on the proposed small business, woman-owned small business, HUBzone small business, veteran owned small business, and historically black colleges and universities and other minority institutions in comparison with the goals stated in Section I.8, on the methods for achieving the goals (small disadvantaged business will be evaluated as a separate Subfactor under Mission Suitability), and on the types and amount of work proposed to be performed with emphasis on utilization of such entities in high technology efforts.

MP3 – Phase-In/Phase-Out Approach

The Offeror's approach to ensure continuity and a smooth transition during phase-in and phase-out periods will be evaluated.

MP4 – Key Position Descriptions, Rationale, and Personnel Qualifications

The reasonableness of the Offeror's rationale for designating position(s) as key, the appropriateness and reasonableness of the job description(s), and the suitability of the individual(s) selected as key will be evaluated. The evaluation will consider the experience (technical and management) of each key person for the position being proposed, the qualifications (education and training) of each

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key person, as well as the degree of availability and stated commitment, and the past performance for each key person proposed.

MP5- Risk Assessment

Ability of the Offeror to perform risk assessment, address risk factors and issues, and the approach to managing these risks will be evaluated.

SUBFACTOR 2 - APPROACH TO MEETING THE REQUIREMENTS

UA1 – Narrative Demonstration of Understanding Performance-Based SOW Requirements

The Offeror's overall understanding and approach to meeting each of the SOW requirements will be evaluated. This includes how the Offeror's cost/price proposal is consistent with this approach, as demonstrated by the completeness, overall balance, consistency of all parts of the proposal, realism of Offeror's resources and other associated contractual arrangements.

UA2 – Staffing

The Offeror's staffing and recruiting approach will be evaluated for understanding of the skill mix, the levels of expertise and qualifications for positions other than key, and the distribution and effective use of the work force, including staffing levels, necessary to support this requirement. In addition, this element will evaluate the Offeror's approach for cross-training, replacement, and backup for non-key personnel and for attracting and retaining high quality personnel. The Offeror's Total Compensation Plan and personnel policies regarding the ability to attract, motivate, and retain a qualified workforce will also be evaluated.

UA3 – Innovations with Supporting Rationale

Any proposed innovations, cost effectiveness, low cost planning, and the technical merit of alternatives or "extras" to the SOW, the expected impact (both positive and negative), and the validity of rationale supporting the proposed change(s) will be evaluated in order to emphasize productivity improvement.

UA4 – Reliability Centered Maintenance (RCM) Implementation

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The Offeror's RCM implementation will be evaluated for proposed methods to attain building and system availability at the lowest life cycle cost while meeting security, safety and health, and environmental requirements. How FMEA and age exploration will be utilized for maintenance task modification will also be evaluated.

UA5 – Predictive Testing & Inspection Technologies

The Offeror's knowledge of PT&I technologies and proposed implementation will be evaluated for types of failures that should be avoided by using a specific technology and data indicator changes that would warrant additional actions.

UA6 – Work Control Center Operations

The Offeror's proposed approach for a Work Control Center to process all work will be evaluated based on effectiveness of the proposed workflow process and staffing rationale to support their work process. The Offeror's proposed approach to operate and maintain the CMMS using MAXIMO software will be evaluated.

UA7 – Risk Assessment

Ability of the Offeror to perform risk assessment, address risk factors and issues, and the approach to managing these risks will be evaluated.

SUBFACTOR 3 – QUALITY CONTROL

QC1 – Quality Control Approach

The Offeror's overall understanding of a performance based SOW including the interrelationship between the proposed Quality Control Plan (QCP) and the Performance Requirements Summary (PRS) will be evaluated. The utilization of the proposed organizational structure and management process in assuring quality control will also be evaluated.

The Offeror's QCP will be evaluated for completeness, to include the methods or processes the Offeror will use to ensure quality requirements are being applied to each contract element. The Offeror's overall quality system, implementation and proposed schedule of ANSI/ISO/ASQ Q9001: 2000 quality system, continuous quality improvement, employee awareness, qualifications and authority of inspectors, monitoring and control activities, procedures for

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identifying substandard work, sanctions for substandard work, and use of feedback to improve quality control will be evaluated.

QC2 – Risk Assessment

Ability of the Offeror to perform risk assessment, address risk factors and issues, and the approach to managing these risks will be evaluated.

SUBFACTOR 4 – SAFETY, HEALTH, AND ENVIRONMENTAL

SH1 – Safety and Health Plan

The Offeror's safety, health, and environmental policies and processes, including the draft Safety and Health Plan (DRD 987SA-001) will be evaluated to assess focus on workplace safety and adherence to MSFC safety, health, and environmental procedures and policies.

SH2 – Risk Assessment

Ability of the Offeror to perform risk assessment, address risk factors and issues, and the approach to managing these risks will be evaluated.

SUBFACTOR 5 – SMALL DISADVANTAGED BUSINESS (SDB) PARTICIPATION

This subfactor will be used to evaluate the Offeror's approach to ensuring maximum SDB participation in this contract. In accordance with NFS 1815.304(B), SDB concerns that do not waive the price evaluation adjustment provided for at FAR 52.219-23 in Section I of this solicitation will receive 0 (zero) points under this subfactor. The following will be evaluated:

SD1 –Total Target for SDB Participation

The total targets for SDB participation expressed both in dollars and percentage of total contract value.

SD2 - Type of Work to be Performed

The complexity and variety of high technology work to be performed by SDB will be evaluated.

SD3 - Record of Past Participation of SDB

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The probability that the Offeror's proposed approach and procedures along with the past record of accomplishment will ensure attainment of the proposed SDB participation targets.

2. VOLUME II - COST/PRICE FACTOR

The proposed cost/prices will be evaluated for reasonableness and realism.

FOR PROPOSAL EVALUATION PURPOSES, the Government will evaluate cost/price components in accordance with the data submitted on Attachment L-34.

3. VOLUME III - PAST PERFORMANCE FACTOR

The Offeror's overall corporate past performance, to include the corporate past performance of any proposed subcontractors (as opposed to that of proposed key personnel), on comparable or related procurement/project efforts will be considered. Emphasis will be given to the extent of direct experience and quality of past performance on previous contracts that are highly relevant to the effort defined in this RFP (planned and reactive maintenance, operations, services, cost control, schedule performance, management, etc.) The Offeror's safety and health performance and lost time incident rate will be considered. This factor is not numerically scored but is assigned an adjective rating and reported to the Source Selection Authority for consideration in making a selection. Offerors having no relevant past performance will receive a neutral rating of "Good" (i.e., they will not be evaluated favorably nor unfavorably).

G. RELATIVE IMPORTANCE OF EVALUATION FACTORS

1. While only the Mission Suitability Factor is scored, in order to provide the Offeror with an indication of the relative importance of the three factors (Mission Suitability, Cost/Price, and Past Performance), the following information is furnished:
 - a. The three factors, Mission Suitability, Cost/Price, and Past Performance are essentially equal in importance.
 - b. All evaluation factors other than cost or price, when combined, are significantly more important than cost or price.
2. The subfactors to be used in evaluating Mission Suitability and their corresponding weights are listed below:

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<u>SUBFACTOR</u>	<u>WEIGHT</u>
a. Management Approach	300
b. Approach to Meeting the Requirements	400
c. Quality Control	125
d. Safety, Health, and Environmental	125
e. Small Disadvantaged Business (SDB) Participation	50
<hr/>	
Total Possible Points	1000

The numerical weights assigned above are indicative of the relative importance of those evaluation areas. The weights will be utilized by the Source Selection Authority (SSA) only as a guide. The SSA shall use the evaluation factors and subfactors set forth in the solicitation to make the source selection decision. The SSA shall consider the SEB findings to determine which of the proposals submitted, in response to the solicitation, would prove most advantageous to the Government, all factors considered.

(End of Provision)

[END OF SECTION]